

JUNE, 1959



AMATEUR RADIO

SPECIAL ISSUE ON

AMATEUR RADIO

PROTESTS AGAINST F.A.S.C. PROPOSALS

AMATEUR RADIO

FOR REDUCTION OF AMATEUR BANDS

AMATEUR RADIO

CALLING ALL AMATEURS!

AEGIS

J.39 I.F. TRANSFORMER

At the request of numerous Amateur Operators, a **NEW AEGIS Type J.39** 455 Kc/s. highly stable, highly selective I.F. Transformer for COMMUNICATIONS work has been made available. This quality Transformer has been found particularly suitable in single sideband circuits incorporating cascaded half-lattice crystal filters, as described in "QST" and A.R.R.L. Handbooks.

ONLY
26/6

EACH
plus Sales Tax

Furthermore, IT WORKS WITH ALL TYPES OF CRYSTALS!

Just ask for the AEGIS J.39 Transformer!

AVAILABLE AT ALL INTERSTATE AEGIS DISTRIBUTORS
including MAGRATHS Radio Parts Centre, 208 Lt. Lonsdale St., Melb. FB 3731

Registered at G.P.O. Melbourne, for transmission by post as a periodical

RADIO
RADIO
RADIO
RADIO
RADIO
RADIO
RADIO

1/6

AMATEUR RADIO

"HAM" RADIO SUPPLIERS

(KEN MILLBOURN, PROP.)

5A MELVILLE STREET, HAWTHORN, VICTORIA

North Balwyn Tram Passes Corner, near Vogue Theatre.

Phone: WM 6465

Money Orders and Postal Notes payable North Hawthorn P.O. Packing Charge on all goods over 10 lbs. in weight, 5/- extra.

NOTE THESE VALVE PRICES

Look at these Bargain Priced NEW VALVES—

1H6	3/6	6F6G	10/-	12J5	7/6	956	5/-
1K4	5/-	6H6	2/-	12K8	10/-	958A	2/6
1K5	2/6	6J5	7/6	12SA7	10/-	1626	5/-
1K7	5/-	6J5GT	7/6	12SC7	2/6	1629	5/-
1M5	5/-	6J6	12/6	12SJ7	10/-	1851	5/-
1P5	5/-	6K6G	7/6	12SK7	5/-	2051	7/6
1Q5	5/-	6K7G	5/-	12SN7	12/6	8003	10/-
1R5	5/-	6L7	5/-	12SQ7	2/6	9001	2/6
1S5	10/-	6N7	10/-	12SQGT	2/6	9006	5/-
1T4	7/6	6N8	15/-	12SR7	5/-	100TH	35/-
2A5	10/-	6R7	5/-	25Z5	5/-	AV11	2/6
2X2	7/6	6SC7	7/6	42	12/6	CV6	2/-
3S4	7/6	6SF7	12/6	45	5/-	EH33	5/-
5U4G	12/6	6SG7	12/6	75	2/6	EK32	10/-
5V4G	15/11	6SJ7GT	12/6	78	2/-	GL46A	12/6
6A3	7/6	6SL7	12/6	302	5/-	VR90	15/-
6AB7	7/6	6SN7GT	12/6	304H	£3	VR100	5/-
6AG5	10/-	6SH7G	4/-	717A	12/6	VR101	5/-
6AG7	12/6	6X5	10/-	726A	7/6	VR102	5/-
6AJ5	7/6	7A6	5/-	815	35/-	VR103	5/-
6AG8	12/6	7A8	3/6	829B	£5	VR136/RL7	1/6
6B4	12/6	7C7	5/-	830B	7/6		
6B7	10/-	7E6	3/6	833A	£15	VT50	2/6
6C5	5/-	7W7	2/6	834	7/6	VT52	10/-
6C6	5/-	12A6	10/-	866/DQ2	£10	VU39	2/6
6C8	5/-	12AH7	7/6	884	10/-		
6D6	5/-	12H6	7/6	885	7/6	X61M	12/6

1C7	3/-	each or 7 for	£1	956	7/6	each or 3 for	£1
2X2	7/6	each or 3 for	£1	12SF7	10/-	each or 3 for	£1
6AC7	2/11	each or 3 for	£1	1625	5/-	each or 5 for	£1
6C4	5/-	each or 5 for	£1	CV66 (RL37)	5/-	ea., 5 for	£1
6H6Gs	5/-	each or 11 dozen	£1	EA50	2/6	each or 10 for	£1
6K7G	5/-	each or 5 for	£1	EF50	3/6	each or 7 for	£1
6SH7	5/-	each or 5 for	£1	EF50	valve sockets,	3/6	ea.
6SH7GT	4/-	each or 6 for	£1	RK34	5/-	each or 5 for	£1
7C7	2/6	each or 10 for	£1	VT501	7/6	each or 3 for	£1
954, 955	5/-	ea. or 5 for	£1	VT127	5/-	each or 11 dozen	£1

New Valves—VR53/EF39, direct replacement for 6U7. High gain, low noise. 5/- each or five for £1.

VR55/EB33 D.D. Triode, 6.3v. heater. American octal base.

Trade price 22/3. Our price: 5/- each or 5 for £1.

3AP1 Cathode Ray Tube 27/6 each

5BP1 5 inch Cathode Ray Tube 30/-

7BP7 7 inch Cathode Ray Tube 10/-

NC13A 7 inch Cathode Ray Tube (similar VCR97) 30/-

THIS MONTH'S SPECIALS

SCR522 Transceiver, freq. range: 100-150 Mc. Complete with valves including 832s, as they come, clean condition, £10.

CRYSTALS in DC11 Holders. All £1 each—

5170 Kc.	5980 Kc.	7962.857 Kc.	8425.714 Kc.
5410 Kc.	6350 Kc.	7997 Kc.	8460 Kc.
5700 Kc.	6420 Kc.	8065.714 Kc.	8525 Kc.
5710 Kc.	6423.333 Kc.	8161.538 Kc.	8562.857 Kc.
5810 Kc.	6450 Kc.	8360 Kc.	8645.45 Kc.
5910 Kc.	6960 Kc.	8371.428 Kc.	8682.857 Kc.
5950 Kc.			8751.428 Kc.

Crystals: 1898.75 Kc., 1896.25 Kc., and 1985 Kc., £2 each.

3.5 Mc. Marker Crystals, miniature, with holder £2/10/0

Meters—0-0.35 amp. R.F., FS6 and 101 type 10/-

BC455 Command Receiver, 6-9.1 Mc., air tested, with valves £5

APN1 Receivers, complete with valves £7/10/0

As used in A.C. Power Supply for No. 22 Set. (see page 3).

A.W.A. Transmitters, Mobile, freq. 33 Mc. Contains four type

6V6s, one 807 final. 6v. vibrator supply. Modulated. £7/10/0

108 Mk. III. Portable Transceivers. Complete with Valves,

Headphones, Mike. Freq. range: 7-9 Mc. Bargain £7/10/0

128 Portable Transceivers, freq. range: 2-4.5 Mc. Nine miniature

valves (1.4v. series), 0-500 microamp. meter. Less

Crystals. Bargain £7/7/6

3BZ Transmitter, complete with valves, 12v. operation £15

AT5 Transmitters, as new, with valves & dust covers, £8/17/6

AR5/AT5 Connecting Cables 10/- each

SCR532 Signal Generator, freq. cov. 100-150 Mc. Calibrated

dial. Complete with valves £8

SCR522 28 volt Genemotor Power Supply 30/-

SCR522 Modulation Transformers 30/-

SCR522 Driver Transformers 10/-

A.W.A. V.h.f. Mobile Transmitter, f.m. Freq. range 156-172 Mc.

Crystal controlled, complete with min. valves and two E26s

and vibrator supply. A gift at £12/10/0

Type "S" Power Supply. 230v. A.C. Good condition £25

Co-ax Cable, 72 ohm, 1" diam., in 10-yd. lengths £1, or 2/- yd.

Co-ax Cable, 98 ohms, in 100 yard rolls. £7/10/0 per 100

yard roll, or 1/9 yard.

Co-ax Cable, 100 ohm, any length 2/- yard

American Amphenol Co-ax Sockets (chassis type) 2/6

Pi Type Co-ax Plugs and Sockets 4/- pair

Command Receiver Flexible Drives, 12 ft. long 10/-

Relays—522 type, 5000 ohm £1

Relays—522 type, aerial change-over £1

U.S.A. L.F.F. Units, complete with Valves and Genemotor,

£5/17/6. Less Genemotor, £4/17/6.

Car Radio Suppressors: Spark Plug type, 2/- each; Distributor

type, 2/- each, or 12 for £1.

APX1 24v. Shunt Motors, ideal for Small Beams. Works

on A.C., new £1/10/0

APX1 Chassis, top deck, containing 28 Miniature Ceramic

7-pin Valve Sockets, Condensers, Resistors, etc., etc. A

good buy at £15/10/0; postage 5/- extra

1655 Ceramic 7-pin Sockets 3/6; 807 Ceramic 5-pin Sockets 2/6

Loctal Valve Sockets 1/- each

Valve Sockets, Acorn Ceramic 3/6 each

ALL Q-PLUS T.V. CONSTRUCTORS PARTS READILY AVAILABLE

Pots, small wire wound: 25, 50, 100, 250 and 500 ohms, linear

..... 3/6 each

Electrolytic Condensers: 16 uF. 525v.w. (pigtail type), 2 uF.

525v. (pigtail type), 3/- each or £2/10/0 per carton of 20.

3" Coil Formers, Plastic 6d. each

Midget Ceramic Trimmers, 3 to 55 pF. 1/-

A.W.A. B.F.O. Type 4077, 10 cycles to 13 Kc. A.C. operated.

Condition as new £25

A.W.A. Valve Voltmeter, 1.5v. to 150v. A.C. operated. £15

English Filter Chokes, small type, 40 Ma., 100 ohm resist. 3/6

Shielded Wire, single, American 1/6 yard

Power Transformer, small, 265v. aside 60 Ma., 6.3v. 2.8 amp.

200-225-250v. primary. Brand new 25/-

American 4 mfd. 1000v. Condensers 7/6 each

Miniature Variable Condensers, screwdriver adjustment, silver

plated. Sizes available: 25 pF., 55 pF., 80 pF., 105 pF.,

or 110 pF. New condition. 7/6 each or Three for £1.

Two-Gang Condensers, Broadcast 12/6

Three-Gang Condensers, ARS High Frequency Type 15/-

Four-Gang Condensers, approx. 150 pF. per section 15/-

1958 Call Books now in stock, 5/- each. Also Log Books, 4/6.

AMATEUR RADIO

JOURNAL OF THE WIRELESS INSTITUTE OF AUSTRALIA

Published by the Wireless Institute of Australia, Victorian Division,
478 Victoria Parade, East Melbourne, C.2.

Postal Address: P.O. Box 36, East Melbourne, C.2, Vic.

EDITOR:

R. W. HIGGINBOTHAM, VK3RN.

PUBLICATIONS COMMITTEE:

G. W. BATY, VK3AOM.
G. BILLS-THOMPSON, VK3AHN.
S. T. CLARK, VK3ASC.
J. C. DUNCAN, VK3VZ.
J. A. ELTON, VK3ID.
R. S. FISHER, VK3OM.
E. C. MANIFOLD, VK3EM.
J. G. MARSLAND, VK3NY.
A. ROUIDE, VK3UJ.
J. VAILE, VK3PZ.

ADVERTISING REPRESENTATIVE:

BEATRICE TOUZEAU,
96 Collins St., Melbourne, C.1.
Telephone: MF 4505.

PRINTERS:

"RICHMOND CHRONICLE,"
Shakespeare St., Richmond, E.1.
Telephone: JB 2419.

MSS. and Magazine Correspondence

should be forwarded to the Editor,
P.O. BOX 36,
EAST MELBOURNE, C.2, VIC.,
on or before the 8th of each month.

Subscription rate in Australia is
18/- per annum, in advance (post
paid) and £1/1/- in all other
countries.

Wireless Institute of Australia
(Victorian Division) Rooms' Phone
Number is JA 3535.

WI BROADCASTS

All Amateurs are urged to keep these
frequencies clear during, and for a period
of 15 minutes after, the official Broadcasts.

VK3WI: Sundays, 1100 hours EST, simultane-
ously on 3575 Kc., 7146 Kc., and 146.0
Mc. Intrastate call-backs taken on 7090
Kc. only at present.

VK3WI: Sundays, 1130 hours EST, simultane-
ously on 3573 and 7146 Kc., 51.016 and
146.25 Mc. Intrastate working frequency
7135 Kc. Individual frequency checks
of Amateur Stations given when VK3WI
is on the air.

VK4WI: Sundays, 0900 hours EST, simultane-
ously on 7146 Kc., 14.940 Mc. and
56.172 Mc. Country hook-up Sunday
mornings 0900 hours. Please call VK-
42M on 20 mhz and Bruce VK4ZBD on
6 mhz.

VK5WI: Sundays, 1000 hours SAST, on 7146
Kc. Frequency checks are given by
VK5MD and VK5WI by arrangements
on all bands to 36 Mc.

VK6WI: Sundays, 0930 hours WAST, on 7146
Kc. No frequency checks available.

VK7WI: Sundays, 1000 hours EST, on 7146
Kc. and 3672 Kc. No frequency checks
are available.

VK8WI: Sundays, 0930 hours EST, simultane-
ously on 3650, 7146 and 14342 Kc.
Individual frequency checks of Amateur
Stations given when VK8WI is on the air.

EDITORIAL



TO GENEVA—WHAT THEN?

In the near future, at Geneva, a
group of men will gather around the
conference table and form opinions
and come to conclusions regarding
the pattern of the Radio Frequency
Spectrum for some years to come.
The result of their deliberations will
effect many people in various walks
of life throughout the world. Not
least among these will be the Radio
Amateurs.

The recent announcement by the
Postmaster-General as to the pro-
posals for the frequency allocation
of the Amateur Service has brought
forth a great deal of comment. The
suggestion that the present narrow
bands available for general com-
munication be reduced still further
is a devastating blow at the Amate-
ur generally.

Apart from the fact that the
Amateur is of especial value to his
country both in peace and war, the
Institute firmly believes that the
extremely narrow bands even now
available are totally inadequate for
the purposes of private radio com-
munication. These frequencies, small
as they are, are the final strongholds
of personal freedom in the radio
spectrum. They are the only places
where a radio operator may exer-
cise his rights as an individual. Here
an operator may utilise what form
of transmission he desires; he may
speak with whom he pleases; he may
discuss any range of normal
subjects; he acts as a free loyal citi-
zen and subject of his country.

What is going to happen if, due to
continuous paring, the Amateur Ser-
vice bands are reduced to nothing?
The whole of the spectrum will be
authoritatively controlled; all will
operate as directed; the bands will
be regimented; the free voices will
be stifled for ever. What of the pro-
posals and Geneva?

The Radio Amateur includes in his
code Loyalty and Patriotism. That

he acts on this cannot be denied. The
list of those Amateurs who made the
Supreme Sacrifice in recent wars
proves that they were no chair-borne
cavaliers. The citations for work
against flood and fire indicate their
outlook in peace time. The Amateur
sets a proud record of ready, willing
sacrifice for any worthy cause.

But what of that reduction of fre-
quencies on his already overcrowded
bands? The Amateur is disturbed at
these proposals. Do these bands
really have to be taken? Are there
no modern technical methods which
can be devised by commercial inter-
ests to extend channel availability?
Amateurs have successfully adopted
devices which have allowed for the
ever-increasing population of their
own bands. Why cannot commercial
interests do the same? Can it really
be proven that the other interests
are in such difficulties that in spite
of the most modern techniques the
communication facilities are breaking
down? Does this condition exist?

And what of Geneva? It was most
fortunate that the Institute planned
to have one of its members at the
conference table so that he could
report back to those in Australia
what was happening. This member
with balanced judgment and under-
standing mind will bring back a
wealth of knowledge concerning
trends and outlook on an interna-
tional scale. On this information the
Institute must plan for the confer-
ence which follows that of Geneva.

The Institute must be sure that
our bands are retained. The Amate-
urs hold a very precious part of
man's inheritance, a thing that he
has fought and died for. Amateurs
throughout the world must be ever
watchful.

"The price of liberty is eternal
vigilance."

FEDERAL EXECUTIVE.

THE CONTENTS

Geneva and the Amateur Service	3	Remembrance Day Contest, 1959 20
Parliamentary Comments on Pro- posals to Cut Amateur Fre- quencies	5	Book Review: A.R.R.L. Single Sideband Handbook
Amateur Reaction	16	VHF
Mr. Fairhall, M.H.R., Talks to the Amateurs of Australia	17	Correspondence
A Two-Stage Transistor Xmitter	24	Ross Hull V.H.F. Contest Results
Prediction Chart, June 1959	18	Amateur Call Signs
		DX
		Notes

Two Mullard Tubes



**2½" general purpose tube
DG7-5 (CV2175)**

The DG7-5 has a low operating voltage and is intended for symmetrical deflection. It is being successfully employed for wave form monitoring and for inexpensive oscilloscopes.

**5½" x 1½" flat A-scan tube
DG16-22/7APHI (CV2352)**

The screen of the DG16-22 measures 5½" x 1½". A number of these tubes can be easily stacked to provide multiple displays in confined spaces.



Mullard

COMMUNICATIONS AND INDUSTRIAL VALVE DEPARTMENT

MULLARD-AUSTRALIA PTY. LIMITED

35-43 Clarence St., Sydney — BX2006 592 Bourke St., Melbourne — MU2366
Associated with MULLARD LIMITED, LONDON, MULLARD EQUIPMENT LIMITED,
MULLARD OVERSEAS LIMITED

GENEVA and the AMATEUR SERVICE

The Postmaster-General has released as public property the proposals from his Department which went forward to Geneva last March to be interrelated with the proposals of other countries to become the format for the International Telecommunications Union Conference which commences on the 17th August, 1959.

These proposals include changes in various parts of the spectrum, but of particular interest to us are those frequencies allotted to the Amateur Service. Mention of these changes was made in a recent tape recording (and printed in "A.R.," April 1959.—Ed.); but despite this forewarning, the actual details of these changes came as a surprise to most Amateurs. Spontaneous protests from Amateurs throughout the Commonwealth to their Federal Members, however, resulted in wide support for the preservation of the status quo for Amateur frequencies from all parties in both Houses of the Australian Parliament.

Despite the efforts of the W.I.A. to present adequate reasons from the Amateur viewpoint for the retention of existing frequency assignments, it became perfectly obvious from the outset that no matter what form our protestations took, the Frequency Allocation Sub-Committee would merely listen sympathetically but vote for the requirements of the frequency user with the so called "higher priority" regardless. The W.I.A. had no other alternative but to look for assistance in defence of the right of the Amateur in more powerful quarters.

Due mainly to the laudable representations made on our behalf by the honorable Alan Fairhall, M.H.R., who holds a transmitting license under the call sign VK2KB, and Senator George Hannan, Senator for Victoria, who has always been vitally interested in the Amateur movement, our case was presented to the Government and has gained such unexpected support from members in every part of the Australian Parliament that we can feel perfectly reassured that our case was a legitimate one.

Elsewhere in this issue of "Amateur Radio" you can read for yourselves extracts from Parliamentary Debates (Hansard) which will give you details in chronological order of what was said in defence of Amateur Radio and I think you will agree no finer tributes and recognitions could have been made.

Alderman Jones, of Newcastle, took the matter into the Labour Caucus which was unanimous that the Postmaster-General withdraw, review and re-draft the current proposals. Alan Fairhall took the matter to the Government Party Room. Senator Hannan raised the matter in the Senate. Both of these honorable members received support, and as at the time of writing the matter has reached a stage where it will be scrutinised by the Federal Cabinet.

The proposals, if they get through the Geneva Conference, will be disastrous to Amateur Radio in Australia. From Atlantic City the Australian Amateur

lost more than any other country in the world and that includes New Zealand which is in the same world region. Why? Now, eleven years later, we are faced with more reductions and in the same bands. This time we know the reasons and cannot under any circumstances support them as having a priority any greater than our own. The Postmaster-General, guided by his Departmental officers, states that the drastic reductions "amounts not so much to reductions as to the rationalisation and alteration of existing frequencies". For a growing country like Australia, but which is still small, population wise, compared to America and England, this so termed "rationalisation" does this to our bands:—

Current Allocations

3.5 to 3.8 Mc.	
7.0 to 7.1 Mc. (exclusive)	
7.1 to 7.15 Mc. (shared)	
14.0 to 14.35 Mc.	
21.0 to 21.45 Mc.	
26.96 to 27.23 Mc. (shared with I.S.M. Services)	
28.0 to 30.0 Mc.	
56.0 to 60.0 Mc.	
144.0 to 148.0 Mc.	

Proposed Allocations

3.5 to 3.7 Mc.	
7.0 to 7.1 Mc. (exclusive!!)	
14.0 to 14.25 Mc.	
21 Mc. band (as currently used, we are told)	
26.96 to 27.23 Mc. (same)	
28.0 to 30.0 Mc. (same)	
56.0 to 58.0 Mc.	
146.0 to 150.0 Mc.	

No Proposals to vary any bands higher up.

These proposals provide for a reduction of 100 Kc. off the 80 metre band, 50 Kc. off the 40 metre band, and 100 Kc. off the 20 metre band in the short wave frequency bands. A reduction of 2 Mc. in the 56-60 Mc. and a movement of the entire 144 Mc. band upwards by 2 Mc.

The changes which will prove the most dangerous are in the short wave bands mainly; particularly the 20 and 40 metre bands which are, by and large, the most heavily populated bands the world over. And why are they required? To provide channels for services whose existing channels will be less useful as the sunspot cycle advance is one reason, and to provide clear channels for the reception (not transmission mark you) of overseas programmes into Australia! And so the easy way out is to take frequencies from the Amateur Service because it is considered by the Postmaster-General's Department as having the lowest priority to the exclusion of all the assets in its favour. No wonder the Amateur "is up in arms about the matter!"

Government members have told you that this is a typical example of bureaucracy at work, decisions being made on behalf of the Parliament and the people without the knowledge of the Parliament and the people. They have told you to write to your local Member protesting against the proposals to reduce your operating bands. Do it!

This is the greatest opportunity Amateur Radio has had to have its case heard by other than a group of officers who, on the one hand, say they have the responsibility of looking after the interests of the Amateur, and, on the other hand, sit in conference with representatives from other large frequency users (all Government instrumentalities) with the prime object of providing for their requirements at the expense of the Amateur. There seems very little effort to consider the introduction of new techniques as a solution to finding more channel space, a challenge which the Amateur has always accepted with infinitely less capital and material resources at his command. But in 1947 he was cut down far enough—to the minimum in fact. Beyond that, as his activity of recent weeks shows, he is prepared to fight for a fair share of what was once his own—given to him by Governments who said it was useless domain.

There is no real reason why the Amateur Service cannot maintain the status quo for there is every reason to believe that the large Amateur populated countries are not expecting other than small variations to their existing frequency allocations in the v.h.f. region.

The Federal Executive sent this telegram to the Acting Prime Minister, Rt. Hon. J. McEwen, and other members of the Parliament:—

"Wireless Institute of Australia endorses protestations made by Australian Amateurs and appreciates support given by your Government in bringing this matter to notice of Australian people. Stop W.I.A. firmly opposes proposed frequency curtailments by P.M.G. Department on grounds that negative approach to frequency allocation problems cannot ever be resolved by reduction in Amateur bands to detriment of Service so valuable to Australian future. Stop Long after Amateur extinct P.M.G. would still be faced with similar problem. Stop Suggest Government investigate reasons behind proposals for Amateur band reductions on basis of lack of foresight in use of modern transmission and reception techniques by frequency users grasping Amateur frequencies as simple but temporary means for solving problem."

—G. Maxwell Hull, Federal President (for Federal Executive, W.I.A.).

UNIFORMS DUST COATS

for your Office Staff, Factory, Workshop, Servicemen.

Bowls Frocks, Tennis Frocks, for the retail trade.

D. MILBURN & CO.

238 Flinders Lane, Melbourne

The WARBURTON FRANKI Page

All Your Radio and T.V. Needs — **BARGAINS** — Check it each month!!!

W.F.'s. PRE-STOCKTAKING Clearance—We're overstocked with the following lines so buy now & SAVE

CAR AERIALS—Windscreen type complete with mounting bridge. 3-piece 39/0. Post: Vic. 1/8, Int. 3/8.

REMOTE CONTROL CABLES for Car Radios. 36 inch long 39/6 pair. 12 and 24 inch long 57/6 pair. Post: Vic. 1/6.

POWER TRANSFORMERS—Horizontal Mounting. 355v. at 80 mA. 35/-; 355v. at 100 mA. 39/8; 355v. at 150 mA. 49/8. All above with 5v. and 6.3v. filament windings. Freight forward.

PHONE PLUGS, P.M.G. type, 1/- ea; Post 3d.

HEADPHONE WINDINGS, 500 ohms, 1/3; Post 3d.

RESISTORS, 50 ohms 25 watts with adjustable tap, 2/- ea. Post 3d. 15,000 ohms 20 watts, ditto, 2/- ea. Post 3d.

VALVES, 174 or 155 in cartons, 8/11 ea. Post 6d.

T.V. AERIALS, 2 element type ideal for primary areas—suitable for loft mounting or outside, 55/- ea. Freight forward.

L.R.C. LOUDNESS CONTROLS—1/2 or 1 meg. Consists of a 2-gang Potentiometer with 2 Condensers and 1 Resistor wired on. Less Switch, 16/-; with Switch, 17/8. Post 9d.

MULTIMETERS:

Brand new imported Instruments, 1,000 ohms per volt, complete with test leads. Measures AC/DC volts to 1,000 in four ranges.

DC Current to 250 mA.

Resistance to 100,000 ohms.

Size: 4 1/2 x 3 1/2 x 1 1/2 inches.

7 Gns. each. Post: Vic. 1/10, Int. 3/-.

AMPLIFIERS:

Brand new imported Mullard type 5-10 complete with Control Box.

Type to suit Crystal Pick-ups only. £29/15/0.

Type to suit Magnetic Pick-ups only. £47/15/0.

(*Control Box contains Pre-Amplifier.)

Freight forward.

AERIAL WIRE—100 ft. Coils, insulated. 6/10

coil. Post: Vic. 1/-, Int. 2/6.

COIL FORMERS—Plastic 1 1/2 inch diameter mounted on 6-pin base.

1/2. Post 6d.

STROBOSCOPES—Metal 4 speed 4/6. Post 3d.



● **THE W-F3 HI-FI AMPLIFIER**—Ideal to convert Radiograms to Stereo or for any other purpose where a compact economical amplifier is required. Features: Negative Feedback Tone Control, On-Off Switch, built-in Speaker Transformer. £16/19/6. Freight forward.

● **CABINETS OF DRAWERS**—Rota Brand. Size: 17 1/2" x 63" x 11 1/2", containing 16 Drawers each 6 1/2" x 3 1/2" x 2 1/2".

Type CD1—Undivided Drawers, 52/9.

Type CD2—3 Compartment Drawers, 60/9. Freight forward.

CHANNEL MASTER HEAD HED AMPLIFIERS

PRICE £75/0/0. DESCRIPTION: The Channel Master MHA-7 is a 6-valve all-channel wideband VHF Television Pre-Amplifier supplied in a weatherproof metal case, cadmium dichromate plated and finished in oven baked hammerstone grey. Its companion remote power supply Model PSU-7 delivers power to, and accepts the amplified VHF signals from, the Pre-Amplifier through a common coaxial cable for delivery to the T.V. Receiver/s at 72 or 300 ohms output as required.

APPLICATIONS: Designed primarily for mast mounting, the MHA-7 Pre-Amplifier is particularly suitable in weak signal fringe areas. In addition it can make T.V. reception possible in difficult local areas where relatively good signals may be available at a cliff top or city building rooftop, etc., by compensating for the attenuation in the long run of coaxial cable necessary to reach the required viewing position.

Although signal-to-noise ratio is most favourable where the MHA-7 is mounted right at the aerial/s the equipment is equally suitable for use as a driver or distribution amplifier feeding a number of T.V. receivers in flats, home units, motels, etc. Input and output connections for 72 ohm coaxial cable or 300 ohm line are provided.

T.V. VOLTAGE ADJUSTERS A. & R. type PT1832—Consists of a double wound transformer, voltmeter and switch to adjust voltage. Input voltage may be anything from 190 to 240 volts (50 cycle A.C.) and the output voltage can be arranged internally to be 200, 230 or 240 volts. Power output 200 V.A.

Useful for servicing transformerless T.V. receivers and correction of voltage for amateur transmitters and receivers, tape recorders, Hi-Fi equipment, as well as T.V. sets.

Price £21/11/11; also available less meter £12/8/4. Freight forward.

MAGNAVOX SPEAKERS May be re-coned easily and cheaply. Available to order with any Voice Coil Impedance.

WIDE RANGE TYPE					
	Voice Coil Ohms	Watts	Freq. Range	Price	Post Vic. Int.
6WR	2.7 or 15	6	30-15 Kc/s.	£6/10/0	1/10 3/-
8WR	2.7 or 15	7	30-15 Kc/s.	£7/0/0	2/3 3/6
12WR	2.7 or 15	10	30-15 Kc/s.	£7/7/7	2/11 4/4

STANDARD TYPES					
	Size	Voice Coil Ohms	Watts	Price	Post Vic. Int.
525	5"	2.7	4	42/6	1/10 3/-
6P1	6"	2.7	6	51/5	1/10 3/-
6P2	6"	2.7	6	58/6	1/10 3/-
8P1	8"	2.7	7	52/6	2/3 3/8
8P2	8"	2.7	7	63/-	2/3 3/8
10P1	10"	2.7	8	64/1	2/11 4/4
10P2	10"	2.7	8	75/6	2/11 4/4
12P1	12"	2.7	10	66/-	2/11 4/4
12P2	12"	2.7	10	81/-	2/11 4/4

Transformers to suit, available from 500 to 14,000 ohms C.T., 30/9 ea. 1/10 3/-

CHASSIS PUNCHES Hammer type. Strong and Reliable. 3"-18/4. 1 1/2"-20/-, 2"-20/-, 2 1/2"-23/4. Post. 9d. 1"-30/-, 1-3/16"-33/4. Post 1/6.

Build Your Own ELECTRONIC INSTRUMENTS with FAMOUS AMERICAN "HEATH KITS"



Heath Kit No. V7-A is the world's largest selling V.T.V.M. Kit.

Specifications:

D.C. volts: 7 ranges 6-1.5 to 0-1,500.

Input resistance: 11 megohms.

Sensitivity: 7,333,333 ohms per volt on 1.5v. range.

Accuracy: Plus or minus 3% full scale.

A.C. volts: 7 R.M.S. ranges 0-1.5 to 0-1,500.

Freq. response (5v. range): Plus or minus 1 db.

42 cps. to 72 Mc/s.

Accuracy: Plus or minus 5% full scale.

7 peak-to-peak ranges: 0-4 to 0-4,000.

Resistance, 7 ranges: Measures 0.1 ohm to 1,000 megohms with internal battery.

Size: 7 1/2 x 4-11/16 x 4 1/2 inches. Weight: 7 lbs.

Price £27/10/0 plus 12 1/2% Sales Tax.

Post: Vic. 3/9, Int. 8/4.

● **EASY TERMS** on items priced from 16 Gns.



WARBURTON FRANKI

359 LONSDALE ST., MELBOURNE—MU 8351



OPEN SAT. MORNINGS
TRADE ALSO SUPPLIED

Please include Postage or freight with all orders.

Amateur Radio, June, 1959

Parliamentary Comments on Proposals to Cut Amateur Frequencies

Commencing on 30th April, questions asked in the House of Representatives and the Senate indicated that members had received some indication of the cuts which were proposed in the Amateur frequencies. Following this, Senator Hannan, Mr. A. Fairhall, M.H.R. (VK2KB), and Mr. J. Fraser, M.H.R., all spoke at length on this subject and revealed that substantial cuts were proposed on the 80, 40 and 20 metre bands. Later it was revealed that the 5 metre band was to be halved.

Following the release of this information and its broadcast by VK2WL, Amateur operators lodged indignant protests by telegrams and letters to their Federal Members. For the information of Amateurs generally, we print herewith extracts from Hansard indicating the support that has been given to Amateurs by their representatives in both Houses.

QUESTIONS

In the Senate on 30th April, 1959, Senator Wood asked the following series of questions with notice:

- (1) Is it a fact that Australia will be represented by an official delegation at the conference of the International Telecommunications Union shortly to be held in Geneva to revise the currently operating telecommunications convention?
- (2) Is it a fact that Australian departments have prepared a series of proposals, altering present arrangements, which will be sponsored by the Australian delegation?
- (3) Do these proposals relate to the use of telecommunications by businessmen, commercial interests, private users of telecommunications services, and to the incidental use of radio services by various non-Governmental authorities and interests, and are some of the proposals designed to curtail facilities at present available?
- (4) Have the Commonwealth proposals yet been publicly announced, or will they be publicly announced in advance of the meeting so that informed Australian public opinion can pass judgment on their desirability for the guidance of the Australian delegates?
- (5) Have the proposals been forwarded, or will they be forwarded prior to the meeting, for the information of delegations from other participating States?
- (6) Are the proposals being disclosed in advance to other Governmental authorities, with, if so, will the Postmaster-General explain why such information is not being disclosed to the Australian public.

On the same day in the House of Representatives, Mr. Cameron asked the following:

MR. C. E. CAMERON, to the Postmaster-General.—On what dates were the international agreements on telecommunication and radio services, which were drawn up at the Telecommunications Conference at Atlantic City, United States of America, and are now in operation in Australia—

- (a) Presented to the Senate and the House of Representatives,
- (b) Explained to the Senate and the House of Representatives, and
- (c) Debated and ratified by the Senate and the House of Representatives?

Answer.—The Atlantic City Convention was signed for Australia with the authority of the Prime Minister on 10th October, 1946, and was ratified by the Governor-General in Council on 8th December, 1948. The instruments of ratification in respect of Australia were deposited with the International Telecommunication Union on 7th January, 1949, on which date the convention entered into force for Australia.

On 6th May, 1959, in the House of Representatives, Mr. J. Fraser, M.H.R. for A.C.T., tabled the following written questions:

- (1) Will Australia be represented at a meeting of the International Telecommunications Convention to be held in Geneva in August this year?
- (2) If so, will officers of his Department represent Australia?

● It is felt that the subject matter contained in this issue is of such importance to all Radio Amateurs that no apology is necessary for the lack of technical articles and the curtailment of featured notes.

- (3) Have proposals which are to be put forward by Australia been drawn up by a committee known as the Frequency Allocation and Services Committee?
- (4) What is the constitution of this committee?
- (5) Are Amateur radio operators and their organisations excluded from membership of this committee; if so, for what reasons?
- (6) Do the proposals of the committee include a recommendation for a reduction in the wave bands allocated to amateurs?
- (7) Does the committee propose that wave bands available to Amateurs shall be reduced, in the 80 metre band from 3.50-3.80 megacycles to 3.00-3.70 megacycles; in the 40 metre band from 7.00-7.15 megacycles to 7.00-7.10 megacycles; and in the 20 metre band from 14.00-14.35 megacycles to 14.00-14.25 megacycles?
- (8) Have any protests been made by representatives of amateur radio operators against these proposed reductions?
- (9) Is it a fact that at present the bands are very crowded and are likely to become more so with the growth of population?
- (10) Is the number of amateur operators in Australia increasing each year?
- (11) Is there plenty of space in the rest of the radio spectrum and could this space be allotted to other services without disturbing amateur allocations?
- (12) Have amateur radio operators and their organisations performed valuable work in national emergencies, and do they form a part of the civil emergency network and devote considerable time to regular practice?
- (13) Is it a fact that, although emergency work of this kind requires only a small fixed frequency, there is need for a wider frequency to enable amateurs to practise and use their equipment so as to be ready for emergency work?
- (14) Has the training provided by amateur radio organisations proved invaluable to the armed forces in war-time, as well as a source for providing trained operators?
- (15) Could this form of training be seriously affected if the proposed, or further, reductions in the wave bands are made?
- (16) Was it the work of radio amateurs which led to the original use and subsequent development of shortwave radio?
- (17) Are these amateurs now to be squeezed out of the shortwave bands because of the construction of shortwave radio?
- (18) In the interest of radio amateurs, will he make as full a statement as possible on all these questions?

Answer:

- (1) Australia will be represented at the International Administrative Radio Conference to commence in Geneva on 17th August, 1959.
- (2) Australia will be represented by a delegation composed of officers of the Postmaster-General's Department and Departments of Navy, Army, Air, Civil Aviation

and External Affairs, the Overseas Telecommunications Commission (Australia) and the Australian Broadcasting Control Board.

- (3) Proposals affecting certain of the international radio regulations were formulated by the Frequency Allocation Sub-committee of the Telecommunications Advisory Committee.
- (4) The Frequency Allocation Sub-committee is composed of representatives of the Postmaster-General's Department and Departments of Navy, Army, Air, Supply and Civil Aviation, the Overseas Telecommunications Commission and the Australian Broadcasting Control Board. The committee has authority to co-opt representatives of other radio users as occasion demands.
- (5) The committee is an inter-departmental body and users of licensed radio services including amateur radio operators are not directly represented on the committee.
- (6) The proposals provide for some adjustments to frequency bands assigned to various classes of services including amateurs.
- (7) Yes.
- (8) Yes.
- (9) Yes.
- (10) The bands allotted for use by Australian amateur stations are not crowded nor is it likely that they will become so with normal population increase in the foreseeable future.
- (11) Yes. During the year 1958 the number increased from 3,950 to 3,720.
- (12) In general the bands below 30 megacycles allotted for use by services other than amateurs are greatly overloaded throughout the world.
- (13) Yes.
- (14) The space available in all amateur bands is adequate to meet all working and practice needs.
- (15) Amateur radio operators and organisations do valuable work in training for defence and other purposes.
- (16) Adoption of the present proposals could not prejudice in any way the training work mentioned.
- (17) Many radio amateurs have played an important part in the development of short wave radio.
- (18) No.
- (19) A statement has been made to the House.

SENATE—6th MAY

SENATOR HANNAN (Victoria).—Mr. President, I wish to refer to a non-party matter, and I shall detain the Senate for only four or five minutes in doing so. I refer to a decision of a departmental committee to recommend to the International Frequency Conference to be held in Geneva in August that frequency allocations to amateur operators in Australia, in the 20, 40 and 80 metre bands, be slashed by one-third.

This extraordinary body meets every ten or eleven years at a governmental level and allocates for the ensuing period of ten or eleven years the radio frequencies to be used over the past 30 years it has worked out at eleven years—the frequencies to be used throughout the world by commercial operators and all other users of radio frequencies. The departmental committee in Australia is known as F.A.S.C., or the Frequency Allocation Sub-Committee. The abbreviation is not an abbreviation for "Facsimile", even though the action taken in this instance has been somewhat dictatorial. It is an advisory committee which represents the Navy, the Army, the Air Force, the Australian Interdepartmental Telecommunications Advisory Committee, the Postmaster-

General's Department, the Australian Broadcasting Control Board and the Department of Civil Aviation. The committee advises the Postmaster-General on frequency allocations both in Australia and in other countries. It represents Amateur radio operators in Australia are not represented on the committee, even though they are very important users of the frequency allocations. Amateur radio operators throughout the world are important users of radio frequencies.

The Government has sent its directions to Geneva for publication to the other governments concerned. Unfortunately, the recommendations of the allocation sub-committee have not been known to Australian amateur operators until the public only last week-end. My request, Mr. President, is that the Minister for Repatriation (Senator Sir Walter Cooper), who represents the Postmaster-General in this chamber, should confer with his colleagues to see whether the Australian delegation, instead of going to Geneva determined to sell out one-third of the radio frequencies used by amateur operators, can change its front and unite with the governments of the United States of America and other countries to preserve for amateur operators all frequencies at present being used by them.

I think it is fair to say that this is an excellent example of the regulation of people's affairs by departmental decree in a manner which is almost invariably done in the world. On occasions that I have had to approach the Postmaster-General on behalf of the Wireless Association of Australia, I have always had to go to him in a co-operative way. I feel that this is a matter which somehow or other has slipped past his guard. Therefore, I ask his colleagues to consider the possibility of re-directing the Australian delegation to Geneva so that, instead of these frequencies being given away to wireless amateurs, the men go to them and they are protected.

I do not think it is necessary for a struggle, at this late hour, to canvass the value of these frequencies assigned to the Commonwealth of Australia in an electronic age. When one speaks about amateur radio operators, it is almost axiomatic that one refers to men who are valuable to the Navy, the Army and the Air Force. The moment they join those services, and they have received valuable training in many national disasters such as floods and bush fires. We know of the help they gave as recently as they were given a thank you from the Government. On numerous occasions, the amateur radio operator has proved himself to be a valuable link in the communications chain. For these reasons, I have had occasion to request the Minister for Repatriation to see whether at this late stage the direction can be reversed.

SENATOR WILLESE (Western Australia).—I was not aware, until I heard a whisper earlier this evening, of the matter that Senator Hannan has brought forward. I have had occasion to note the value of the work done by radio hams, as they are known throughout the world.

SENATOR MAHER.—They do not like that term.

SENATOR WILLESE.—Nevertheless, that is the name by which they are known. I am sure the word "ham" is not used in the world. It is only used in the facts outlined by Senator Hannan are correct—I am not suggesting that they are not all correct—they come to me with work. I cannot say that all of them are going overseas and are volunteering to give away some of our bands. I want to know what is happening in other parts of the world. Surely, if you are going to give away some of our bands and let other countries sit back with what they have?

SENATOR MAHER.—The surrender would be to commercial interests rather than to other amateurs.

SENATOR WILLESE.—Amateurs in other parts of the world will not be making the same contribution?

SENATOR HANNAN.—They are not, at the moment.

SENATOR WILLESE.—That is what concerns me so much. It is a weakness that these people are not represented in the House. Without help, amateur radio operators have. I do not wish to delay the Senate, but merely to add a note. I have made a request to the Minister for Repatriation (Senator Sir Walter Cooper), who represents the Postmaster-General. Because of the time of the week of the current session, I ask that next week a statement be made explaining the action of the committee and the reasons for the suggestion. I am sure that the Minister will ask to, even at this late stage, for the opportunity to be given to these amateur operators to put their viewpoint to the allocations sub-committee.

SENATOR LAUGHT (South Australia).—I desire to rise in support of the remarks of Senator Hannan, which were elaborated upon by an Opposition Senator. I have received from the Southern Australia Council of the Institute of Australia a telegram which indicates that the South Australian division of the Institute proposes to petition the Government for a serious reduction of frequencies allocated to the amateur radio services. I can assure the Senate that news of the committee's action was received with much surprise and regret. I end. I believe that the Minister for Repatriation (Senator Sir Walter Cooper) should seek, for the Government, the reversal of the explanation of the matter that has been put forward so excellently by Senator Hannan.

SENATOR WRIGHT (Tasmania).—There is only one thing I want to say. I rise to mention it, because I believe it is of great importance. I think we can detect in this matter an instance of a practice that is becoming all too frequent—the practice of departmental officials going to international conferences and entering into international agreements which come back as facts accomplished and which are expected to be approved by the House and the Parliament. I hope the Postmaster-General (Mr. Davidson) will take that aspect of the matter into consideration. Surely any proposal to set aside an international conference should have been given some consideration by the Parliament, and surely the Government should have to be held responsible for the action of its parliamentary approval. Otherwise the Parliament of the country is completely bypassed. I hope that it will be considered, and I would even, to recall that, when debated the Warsaw Convention and Hague Protocol on civil aviation liability, we were confronted with an international agreement that was being translated into the law of this Commonwealth.

SENATOR WOOD (Queensland).—I do not wish to detain the Senate for long at this late hour, but I think it is right that we should signify our support for Senator Hannan in the very strong views he has expressed. I am sure who comes from the cyclone area of North Queensland, I realise the great value of these amateur radio operators. They are men who are in communications when other means of communications are not available. We remember some of their activities during times of distress in Queensland. They have been found when the ordinary avenues of communications were not open to the people. These amateur radio operators have been found, right from the clock, and rendered a great humanitarian service to the people living in the distressed areas. It is to lend support to Senator Hannan in his attempt to get the Government on a proper basis that I rise on this occasion.

I strongly support the views put forward by Senator Wright, and I am sure that the House, which this Parliament should jealously guard at all times. Sometimes we are too easy in these matters. The views put forward by Senator Wright are worthy of great consideration. This Parliament should retain its right to deal with these matters, and not leave them to the Executive.

SENATOR WADE (Victoria).—I congratulate Senator Hannan for bringing this matter to the notice of the Senate. I have first-hand experience of the value of amateur radio operators in Victoria, and I speak to the value of their worth to the State in times of flood and fire.

Victoria has a unique organisation in that from 500 to 600 enthusiasts have banded together to perfect a communication system that has to be seen to be believed. You have to see it to believe it. It is a unique organisation of their worth. During days of acute fire danger, countless men throughout the length and breadth of the State stand at their posts, ready to give a voluntary service to their fellow men. That is typical of the spirit that actuates the amateur radio operators. Other States are not blessed with the radio communication service with which Victoria is blessed. I ask the Government to have a look at the needs of the amateur radio operators, and to see whether they are the people who will be called upon to form, in their States, the kind of organisation that now exists in Victoria. You cannot assess in terms of money the value of the service that amateur radio operators render to the nation.

SENATOR SIE WALTER COOPER (Queensland).—I am sure that the House will be impressed by the views that have been put forward by Senator Hannan, and supported by other honorable senators, in regard to the activities of the Postmaster-General. I am sure those honorable Senators that I shall bring this matter before my colleague, the Postmaster-General, and I am sure that the "Hansard" report of the debate are received.

HOUSE OF REPRESENTATIVES— 6th MAY

MR. FAIRHALL (Paterson).—I am sure that the attention of the House will be drawn to some national importance and which concerns the administration of the Postmaster-General's Department. I refer to the fact that for a few months thereafter, there will be assembled in Geneva the conference held at ten or twelve intervals by the International Telecommunications Union, to which Australia is a signatory. From this conference I fear that irreparable damage will be done to the amateur radio service, which will be of considerable value. That is the service presented to Australia by the amateur radio operators.

Sir, the task of the International Telecommunications Union, or its major task, will be to decide how the radio frequency channels are to be allocated between the variety of services requiring room therein. It will have to decide which frequencies will be made available to broadcasting, local and international, to television, to communications, to radar, to navigation, to amateur radio, and to all the other services that are increasingly finding use for the radio spectrum. Already member countries have sent to Geneva their proposals for amendment of the frequency allocation, and I am sure that the Government abroad, and at Geneva those proposals are being considered with the proposals of other countries. The final correction will be made to all members of the Union, and will serve as the working document for the conference which, as I have stated, will begin in August.

With regard to the section with which I am particularly concerned—the radio amateurs of Australia—I would like to express my concern to the Postmaster-General (Mr. Davidson) to make public the recommendations. The fact of the matter, Sir, is that these recommendations, if they are not made public, express purpose of being published to other members signatory to the convention. It is rather an odd situation, and I am sure that in Australia, should not have access to these proposals. I think it is rather important to note that without the opportunity for debate on the part of the members of the House of a paper in this House, it may well be that the matter would pass unnoticed by Parliament or by the public. I am sure that the present completely unsatisfactory situation in which Australia may well find herself committed by international agreement in this very important matter, and I am sure that the Government has channels without either the Government, the Parliament, or the people of Australia known to have been consulted. I am sure that has been approved by agreement in our name.

It may well be that the Postmaster-General feels that he has the best experts in this country within his department and therefore, on a matter as technical as this, there is not much point in referring it either to the Government, the Parliament, or the people. My appreciation of the technical competence of the members of the Postmaster-General's Department is not reduced by my belief that there is, within the communications and radio section of the Postmaster-General's Department, a body of people who are thoroughly competent to express their views on the matter. I am sure that at a moment that the officers of the Postmaster-General's Department do not bring a full sense of responsibility to their task in this connection, it is not human if they did not take advantage of their peculiar situation in this matter. The Postmaster-General is not a man who is not rather reluctantly and only under considerable pressure—to make available the recommendations with respect to amateur radio operations and to the amateur radio service of Australia. When these recommendations were published at the week-end I think a considerable number of people, and I am sure that the House, because this is not a party issue, probably received letters and communications of one kind or another from amateur radio operators, urging the House to consider the matter. I am sure that the House will not make the proposed reductions in their allocations.

I pointed out, my interest lies particularly in the allocations for the use of amateur radio operators. These people are a minority. They are people who are non-commercial, yet they provide the extraordinary service to the community. It is for those reasons that I believe I am justified in taking up the cudgels on their behalf. I am sure that the House, because it has been very co-operative on this matter within the limits of its reluctance and arranged for me to meet in Melbourne, a couple of weeks ago, and I am sure that the House will advise his department on these technical matters.

ters. That committee is the Frequency Allocation Sub-Committee. After some superficial discussions with the committee on what, after all, is a deeply technical subject, I came away not at all satisfied that the right thing was being done, but worst of all I came away with a very great concern for the 3,500 radio amateurs of this country, whose future I have to be seriously threatened by the proposed reductions in the frequency channels available to them.

Perhaps I should say a word or two about these amateurs and the service that they render to this country. First of all, as I have said, they are members of a non-commercial organization. They represent a minority of the taxpayers of Australia. Because they are non-commercial and because their activities are of a spare-time nature, they are regarded, I am sure, by the Administration as having a low priority in the scheme of things generally. Perhaps, unless this matter is brought to public attention, the amateurs will lose valuable privileges for all time and Australia may well lose an extraordinary valuable asset. The amateurs consist of an international body of technical enthusiasts. They number something like 250,000. They are found in every country in

the world, not excluding iron curtain countries. They are a group of non-commercial technicians who interest themselves in this technical occupation in their spare time and at their own cost. The Australian radio amateur is no exception. He serves, as their past record has shown, in order to serve this country when it needs them most. Those amateurs in recent times have been in time of war and in periods of civil emergency. These people find in radio an outlet for their experimental, developmental and inventive ideas, and an outlet for their sense of life. You will find radio amateurs amongst industrial apprentices and atomic scientists. You will find them amongst school teachers, sportsmen, politicians, and even statesmen. I think that one or two crowned heads—whether they are still crowned I do not know—in times gone by, have been interested in amateur radio. They will find radio amateurs in factories and laboratories. You will find them heading the communications departments of the armed services. You will find them in broadcasting services. The important point, I think, is that their international operations provide a very potent source for the development of international understanding and goodwill, and nobody will doubt that we are in great need of that commodity today.

The amateurs are recognised by the International Telecommunications Union as a fully fledged international service with international frequencies specifically reserved for them. There was a time, as many of us will remember, when the wavelengths below 100 metres were regarded as of little value and the amateur was free to romp in that spectrum as he wished. I do not think that it is too much to say that his inventive and developmental skills and his tenacity enabled him to show that those wavelengths were not entirely useless. Little by little their value was expanded as new techniques were discovered until today wavelengths not down to 100 metres, but down as low as 3 centimetres, with tremendous technical problems involved, are nevertheless very valuable public property. As these wavelengths become more valuable, so the amateurs have been squeezed down further and their allocations reduced and restricted until today they operate in very narrow bands.

The only free space today for the amateur to carry on his experiments is in the radio frequency channels below 1 centimetre in wavelength. That is pretty valueless territory at the moment, because we have developed neither the equipment nor the techniques to make use of it. But little by little, as amateur radio operators move into this territory, and, of course, with the assistance of scientific laboratories, we will be able to extend the range to ordinary high frequencies, and once again the amateur radio operators will be squeezed down still further; that is, assuming that they have not been squeezed out of existence already. It is because of the possibility, or even probability, that they will be so squeezed out that I think it is necessary to refer to the position at this time.

Amateurs throughout the world, by international reservations made at counterpart conferences to the one held at Canberra, have got bands in harmonic relation to 80, 40, 20, 10, down to 5 metres and into the shorter wavelengths. These were reserved for the amateur availability of these frequencies to the amateurs need for international communication has encouraged into their ranks a vast number of people over the world who have been going over 250,000—to pursue technical knowledge and experience in those particular frequencies. The immediate division that we make of these countries have received from this activity is that during times of war, we have been able to call on a distant army of radio amateur technicians experienced in these high frequency techniques and they have been most useful. During periods of civil emergency when the ordinary channels of communication have gone out of action, we have found on almost every occasion if not every occasion that there have been amateurs there with portable equipment and so on to take up where standard communications have faded out. Certainly, they are only emergency communications, but they get us through and in most of the States, particularly in New South Wales, there is in being an emergency network allied to the civil defence group which would render valuable service if ever the time should come when we find need of it.

For all these reasons, Australia owes a debt to its radio amateurs, and I believe the amateurs are entitled to expect something a little better from Australia and from the Government. I am sure when we seriously consider a plan to reduce their allocations, some bands coming down by one-third and some by one-half. I believe if we make these reductions we will discourage from entering amateur radio—training themselves for national service—a

vast number of young men—and, indeed, young women—who are going into technical occupations in Australia. The great danger is that we may regard the amateurs in Australia less as a national asset and more as a group of people who are merely putting valuable frequency channels to rather inferior use.

I think it is worth noting, by way of comparison, that the radio amateurs who are licensed in the United States of America, where the problem of availability of frequencies is at least as acute as it is in Australia, are more than our own, enjoy a much higher status with their government. Here in Australia when changes are proposed, notice merely comes out from the Department of Post and Telegraphs and they must accept it. In the United States, if there are proposals to change conditions under which the amateurs operate, the Federal Government public notification of the proposal and an opportunity given by the Federal Communications Commission for interested people to give evidence in public on the merits and cons of the proposed change. Here is evidence of a vastly higher appreciation of the amateurs in America than we afford them in Australia.

I should like to refer now briefly to the administrative processes which have produced the present situation. After the Second World War, all communications in Australia have been controlled by the Postmaster-General's Department because it administers the Post and Telegraph Act. The frequencies used by the radio amateurs were under the control of the Navy and wartime requirements took priority as should be the case. After the war, the radio amateurs received their licences back after the war—because naturally they were immobilised during the war—there were set up a number of technical committees under the control of the General's Department. One of these was the Technical Advisory Committee and under that there was a sub-committee called the Frequency Allocations Sub-Committee. The personnel of this Frequency Allocations Sub-Committee was drawn from the Postmaster-General's Department and the Army, and the Air Force, casting Control Board when that was ultimately instituted, the Department of Supply, the Overseas Telecommunications Commission and the Department of Civil Aviation.

The point I stress to the House is that it will be seen that these members were representatives of the Government and not of the major users of radio frequency channels. As I have said, I do not for one moment believe that these people would have been guilty of irresponsibility in their task of advising the Government on the allocation of frequencies, but they would indeed be something more than negligent in that they did not represent as representing as having a higher priority than the amateur transmitters on the side. As I say, I came away from this committee firmly believing the amateurs were being given a too low priority altogether.

Now, Sir, I do not believe anybody who has looked at the scene or is acquainted with telecommunications in any shape or form, will misunderstand the great problems in this field today. In the past ten years, the number of applications for the channels available by taxi, ambulances, police, supply authorities and so on have increased from 2,000 to 10,000. They will continue to increase. The channels are available and though they are to be regarded as having high priority, the tendency will be to squeeze out those of lower priority. That is why the Technical Advisory Committee, as the Postmaster-General's Department has pointed out, it is required to make additional space available for the amateur.

There are two ways of doing this job. One is by the use of more modern techniques because, in the course of discussion I had with the Technical Advisory Committee, the organisation—a communications authority—pointed out that it made a vast multiplication in the effectiveness for the channels available by using modern transmission techniques. The second way is to squeeze out those of lower priority who occupy frequency channels. I suggest that the latter department would do with more enthusiasm and great industry to the task of promoting more modern techniques of operation.

When the channels are available, it is a more effective use of frequency channels available and less need to squeeze out those who may be regarded as having lower priority. I am on another point, we are told there is great need for additional frequencies to be made for international broadcasts, yet those few of us—extraordinary few—who have to listen to an international broadcast will be left, I am sure, to find it very difficult to hear the international broadcasts. The audience must be pretty near zero for this great reason: Where today most countries have high-powered short-wave transmitters, Australia has only a very great deal of propaganda—because that is

Low Drift Crystals

FOR AMATEUR BANDS

ACCURACY 0.02% OF STATED FREQUENCY

3.5 Mc. and 7 Mc.

Unmounted £2 10 0

Mounted £3 0 0

12.5 and 14 Mc. Fundamental Crystals, "Low Drift," Mounted only, £5.

THESE PRICES DO NOT INCLUDE SALES TAX.

Spot Frequency Crystals Prices on Application.

Regirds £1/10/0

MAXWELL HODEN

15 CLAREMONT CRES., CANTERBURY, E.7, VICTORIA

that advocated in another place, which will be discussed further in this chamber, they must carry weight against the opinions of those outside this House. These arguments must be weighed against the advice of the Minister's own officials, and the Minister must make a decision as to whether, in fact, justice has been done or an injustice perpetrated.

The Government's Government seems to me, Mr. Deputy Speaker, to be fostering policies which could lead, as the honorable member for Paterson has said, to the removal of amateur operators from the airwaves. The amateurs—and there are some 4,000 of them in Australia—are really up in arms about this. They believe that the short wave bands are really being sizzling over the past few nights. I believe that there have been conversations on the end of the continent to the other on this subject, because the amateurs are aware that they have been treated slightly by this Government and that the proper claims they have for consideration are being ignored for commercial, government and semi-government interests and, indeed, for foreign interests.

The allocation of wave bands involving international use of the air and associated matters is to be discussed at the convention of the International Telecommunications Union to be held in Geneva soon. This convention is held every four or two years and the last one was held in Atlantic City, I think, 1947. Australia sends representatives including men selected from the ranks of the amateur community. The proposals that are to be put forward have been framed by a committee known as the Frequency Allocation and Services Committee. That committee has recommended among other things very severe reductions in the wave bands available to amateurs in Australia. Australia has a large number of amateurs in the 80 metre band have the channels for 3.5 to 3.8 megacycles. It is proposed to reduce that to 3.5 to 3.6 megacycles, which is a reduction of one-tenth of a megacycle or, as honorable members will know, 100 kilocycles. In the 40 metre band the present range is from 7 to 7.1 megacycles, and the proposal is that the channels in that band shall be from 7 to 7.05 megacycles, or 50 kilocycles. In the 20 metre band the present range is from 14 to 14.35 megacycles, and the proposal is that the channels in that band shall be from 14 to 14.3 megacycles, which involves a reduction of one-tenth of a megacycle or 100 kilocycles.

MR. DUTHIE—Who will get the rest of those channels, if put into effect?

MR. J. B. FRASER—As the honorable member for Paterson has said, the Government has the task of allotting the channels in the bands. But the suggestion made by the amateurs is that there is a large number of channels in the spectrum which can be allotted to the commercial interests, which are mostly intruding into this band, without any interference being necessary in the allocations now available to amateur operators.

The proposal of this Frequency Allocation and Services Committee is put forward to Australia and adopted at Geneva, will severely limit the operations of radio amateurs in Australia, because, as I understand it, the Geneva Convention fixes maxima only, and it is still possible for the Government of an individual country to impose further restrictions within those maxima. The reason for the indignation of the radio amateurs is that at present the short wave bands are very crowded, and obviously they will become more crowded as the population of this country increases and the number of amateur radio operators grows. As I have said, the amateurs claim that there is plenty of space in the rest of the radio spectrum which can be allotted to other services without disturbing their allocations.

It should be remembered that it was the radio amateurs themselves who were the original users, indeed the discoverers, of short waves. As the honorable member for Paterson has said, the Government has developed the use of short waves and demonstrated their efficiency to such an extent that the interest of commercial and government users was aroused. I believe that if the present proposals were implemented the amateurs could be squeezed out of the short wave bands because of the intrusion of commercial and foreign interests. I hope that the Postmaster-General will have another look at this matter. Indeed, I feel that he must, because the weight of argument against the proposals of the Frequency Allocation and Services Committee is such that must be given regard by the Government. I have received a number of representations on this matter, including some from the Can-

berra Radio Society itself, putting forward very strong arguments as to why there should be no change in the allocation of channels to amateurs. I have received a letter from three constituents in the School of Physics of the Australian National University, and I propose to read portions of it. The letter opens by referring to the reductions that have been proposed by the committee, and proceeds—

"The reduction has been recommended by a committee of the Postmaster-General's Department, to frame the Government's policy for the forthcoming I.T.U. conference at Geneva."

The letter then sets out the proposed changes. It first states the original United States and Australian allocations, which were varied eleven years ago so far as Australia is concerned, but are still extant in the United States. The letter continues—

"There is considerable poaching by commercial stations on these bands, which the authorities seem to ignore."

That reference is to poaching by commercial stations in other countries, which are also signatories to the convention, on the bands allocated here to amateur radio. The letter continues—

"It is realised that the demand for channels in the high frequency region is heavy, but it is very much heavier in North America than it is here and it is not thought necessary or desirable to curtail amateur activity there."

"Some of our recently lost frequencies, especially 15-17.3 megacycles, at now being used for European and Far East propaganda broadcasts, and for each broadcast there is a jamming station belonging to the opposition. The result is that 7.15 to 7.3 megacycles is now useless for everybody. The American answer to this has been to allow amateurs to use the kilowatt of hobby in this band and not to bar them from it. We know that this privilege would not be abused here in Australia."

Of course, the power allotted to an amateur operator here is 150 watts, compared with the kilowatt allotted in America. The use of a kilowatt of power would involve the use of much more expensive material than most amateurs can afford. The letter continues—

"Technical progress in radio mostly stems from large research organisations these days, but amateurs do provide a large body of people with some technical knowledge and experience. At present there is a great shortage of people with technical skills and we are always bearing about the gravity of the situation and the superiority of the Russians. To us, this seems no time to discourage a useful activity of some 4,000 Australians, but rather a time to restore some of the lost frequencies."

It seems to us that no harm would be done if we followed the American and Canadian regulations for frequency allocation and transmitted power.

"To follow a policy of continual reduction of bands will undoubtedly result in loss of interest and reduction in the numbers of amateurs who form a very useful pool of skilled people. We don't believe the frequencies we stand to lose will be put to a more worthy use, as this has not been the case in the past."

Other protests have been made. I have one in the form of a telegram sent by the operator of amateur radio station VK1, which reads—

"Protest slashing amateur frequencies—benefit foreign broadcasting stop Query treatment Australians compared other countries example U.S. allocations 3500/4000 The 7300 view services record emergency potential."

From Coff's Harbour comes this telegram, obviously from an amateur operator in that area—

"Further drastic restrictions frequency allocations amateur radio operators tragically short-sighted when Australia already lags badly higher technical education. As high school teacher deplore progressive extinction facilities training youth adults skills necessary our survival. Suggest F.A.S.C. organise compulsory courses Russian Chinese.—Matti, Coff's Harbour, N.S.W."

I do not propose to take up much more of the time of the House on this matter, I do stress again that the radio amateurs of Australia, like radio amateurs generally throughout the world, as the honorable member for Paterson has said, do a most useful job in the community. They are men who have trained themselves and who continue to train themselves by keeping abreast of developments in this field. When disaster strikes in the form of flood, hurricane or fire, they are always ready and always willing to take up the task of keeping communications open, and it has been the custom of this House to express appreciation of the services they have given. I cannot stress too strongly that they are not to be regarded merely as hobbyists who operate these stations for their own amusement or their own benefit. They have given tremendous assistance to this country, both in time of war and in time of peace, and I suggest that the country should repay them as badly indeed when, as has been recommended by the Frequency Allocation and Services Committee, it seeks to reduce the channels available for them to carry on their work, maintain their skill, and extend their experience.

I hope that the Minister for Social Services (Mr. Gibberd, who is at the table, will see that the arguments put forward in this House both during the day and tonight are brought to the notice of the Postmaster-General so that he may weigh the force and the force of these arguments against the advice of the Frequency Allocation and Services Committee, which believe is dominated by departmental representatives. Certainly it is a committee on which the amateurs are not represented. I believe that they should have the right to be

BOOKS

for

"AMATEUR RADIO"

★ Solid Cover bound in black
Fabrex with wire attachment
for easy filing of copies.

•

Price 16/6 each

POSTAGE EXTRA:
Victoria 1/9; Interstate 3/-.

•

NORMAN BROS. PTY. LTD.

60 ELIZABETH STREET,
MELBOURNE, VIC.

ORYX

(LOW VOLTAGE)

MINIATURE SOLDERING INSTRUMENT

*A must
for
Transistors*

(actual size)



PROTECT YOUR TRANSISTORS WITH ORYX

There is a danger of damage when soldering to transistor leads, due to A.C. leakage currents. The use of a low-voltage transformer supply, with earthed secondary is therefore recommended. Take care also that too much heat is not applied to flying leads. The ORYX iron, and a heat-sink such as heavy pliers gripping the lead between the contact point and the transistor, will ensure protection.

- Fast heating element, ready for operation in less than one minute.
- Exclusive design features resulting in universal acceptance of ORYX as the standard miniature soldering instrument.
- The ORYX long life element will outlast several bits which are of tight push-on fit.

Bit Dia.:	Volts	Watts	Nett Weight	Length	Recommended Use
Model 6 1/16" (Fixed)	6	6	0.25 oz.	6"	Electrical measuring instrument fine assemblies, hairsprings, R.F. pick-up and speech coils, hearing aid sub-assemblies, etc.
Model 6a 3/32" (Push-on)	6	6	0.25 oz.	6"	As for Model 6 (for extremely delicate work only).
Model 9 5/32" (Push-on)	6, 12, 24-27½	8.3	0.25 oz.	6"	Hearing Aids, Radio and TV Sub-assemblies, Coils, Electronic Instruments, Model Construction, Electro-Medical, etc.
Model 12 3/16" (Push-on)	6, 12, 24-27½	12	0.5 oz.	6.25"	Radio, Television, and Telecommunications assemblies.
Model 18 3/16" (Push-on)	6	18	0.75 oz.	7¼"	For heavier work, heat capacity equivalent to that of most 80 watt soldering irons.

MANUFACTURERS SPECIAL PRODUCTS PTY. LTD.

47 YORK STREET, SYDNEY

MELBOURNE: Amalgamated Wireless (Australasia) Ltd.

ADELAIDE: Newton McLaren Ltd.

PERTH: Nicholsons Ltd., Carlisle & Co. Ltd.

HOBART: Noyes Bros. Ltd.

BRISBANE: Chandlers Ltd.

MSP3.5P

Amateur Radio, June, 1959

represented on that committee and to put forward their views, even though the weight of numbers in the committee told against them. I hope that Australia will not play a scurvy trick and refuse amateurs by the back door the number of channels available to them for their work, particularly at a time when this country is desperately short of population and is continuing to increase so rapidly.

I suggest most seriously, Mr. Deputy Speaker, that we should discontinue the present method whereby those matters are, in effect, dealt with by the Postmaster-General and his advisers whose recommendations are adopted, and sent overseas as the views of this country, without us having been consulted by Parliament. In fact, they are never dealt with by this Parliament—never brought before either this House or the other House. These recommendations then become legislation by international convention, not legislation by this Parliament. I believe that that is a very grave fault in the procedures that are adopted in these cases and I hope that the Postmaster-General will take the opportunity to discuss this matter with a view to correcting the procedures.

SIR WILFRID KENT HUGHES (Chisholm).—I should like to join with the honorable member for South Australia (Mr. Deighton), the honorable member for the Australian Capital Territory (Mr. J. R. Fraser) and other honorable members who have stressed the need for a different outlook to be taken by the Postmaster-General and the department in respect of amateur radio operators. I do not, like the honorable member for South Australia, have any knowledge of this subject. Also, I have not in my possession the details that the honorable member for the Australian Capital Territory has to judge from his speech. However, I have already received three telegrams on the matter from three of the leaders of the amateur radio operators of the United States. I was recently, with some other honorable members, in Antarctica. Communications from many Australian stations there are received by an amateur radio operator, located in the Antarctic, and amateur operators all over the world. I know well the excellent job that amateur radio operators have done in recurring national crises, such as bush fires and floods, every part of Australia.

MR. DUTHIE.—And in shipwrecks.

SIR WILFRID KENT HUGHES.—Yes, and also in shipwrecks, especially in other parts of the world. The honorable member for High Wycombe (Mr. Timson) also reminds me of the work that they did in wartime. Here we have a not very vocal section of the public, but a very important section of it. I think they have given a lot of their time to something which some people may call a hobby, but which is really a serious thing. These people have very often produced results which have been of great value to the commercial radio operators. Now we propose—or we did propose, at one stage almost to ignore them before this international convention meets. This is another instance, Mr. Deputy Speaker, of something that I have mentioned in this House before, namely, the making of a mistake, perhaps on the passing, but still a passionate plea—for more consideration to be given to the proper working of the House in respect of the amateur radio operators. We are divorced from the people. Unlike a State Parliament, we are not sitting in the main centre of population of the area. As a result of the procedure that we follow, either we do not discuss things of importance—in the present case, the question of the amateur radio operators—or we put bills through with such speed that the people who will be affected do not even have a chance to make representations on their elected representatives. I think that they would like to be considered, and which very often should definitely be considered, before the measure is passed. I think that these people if they think that we and the federal Public Service have developed what they term a fine disregard for the feelings of the people are more entitled to be considered than every member of the House will consider this question of parliamentary procedure and, in particular, in this case, the question of the honorable member for the Australian Capital Territory has called "legislation by international convention".

We have another case recently of such legislation by international convention. This was in the civil aviation field, and concerned a charterment of aircraft, and the rules, which was unknown to the public generally.

Therefore, I not only join with those who ask the Postmaster-General to reconsider the position regarding amateur radio wavelengths, but I also join with those who ask the Postmaster-General to reconsider the position regarding the Australian Capital Territory in regard to legislation by international convention. If the

international conference concerned were a conference of the International Labour Organisation, we would proceed as usual. We would send some of our leading businessmen to the conference to discuss the matters with public servants, as representatives of Australia. Why should the amateur radio operators have to take time to send their observer to this international conference, when it is to be dealt with something that is not just a matter of concern to individuals? I think that everybody in the country who is engaged in the work of amateur radio operators warrants their representatives being included among the people Australia is sending to this conference. However, I can only say that I am not to be reconsidered. The Minister for Social Services (Mr. Robertson), who is in charge of the House in the absence of the honorable member, in only five minutes, so he will not know what was said by the honorable member for Paterson, and he will know only very little of what was said by the honorable member for the Australian Capital Territory. However, I ask him to ask the Postmaster-General (Mr. Davidson) to read in tomorrow's "Hansard" the remarks of these two honorable gentlemen, so that he will be fully apprised of what has taken place in the course of this debate.

HOUSE OF REPRESENTATIVES—7th MAY

MR. MAKIN.—I desire to direct a question to the Postmaster-General. Having received a telegram of protest from amateur radio operators in South Australia at the proposal of the Postmaster-General's Department to recommend a reduction in the number of channels available for amateur radio service and research, I ask the Postmaster-General whether he will have this matter further reviewed, particularly in view of the splendid help given in radio in the development of the country by amateur radio operators. What is the prompt of the department to think of sanctioning the backward step that has been suggested?

MR. DAVIDSON.—The honorable member for Bonnython refers to a matter which is at present receiving attention in the Supply debate. It was mentioned in both the Supply debate and in another place. I intend this afternoon or this evening to reply to some of the statements made in the Supply debate, and the matter raised by the honorable member will then be fully answered.

MR. DALY (Grayndler).—Mr. Speaker, I wish to take advantage of one of the rare opportunities provided by the Government for honorable members to make a statement and attract attention by constituents who are dissatisfied with the Government's actions as they affect them, both individually and collectively. The first matter that I want to raise concerns the re-allocation of frequency bands for the use of amateur radio operators. This matter has already been mentioned previously in this House. I have received a letter from one of my constituents, dated 3rd May, which reads—

"I would like to draw your attention to the proposed re-allocation of frequency bands for amateur radio operators. It has been officially suggested that the bands now in use be reduced to such narrow limits that only about 10 hours of broadcast will be possible at the one time on say 40 metres. "Seeing that Australia's amateurs number about 3,000, the proposed narrowing down would mean that each amateur would have an interesting and instructive pastime. Every night the bands are packed full of signals, so that even an amateur group must operate to give everyone a turn; two-way contacts are extremely rare. I would suggest that the popular 40-metre band be increased to its width of a few years ago, namely 1,000 to 7,300 kilocycles. Further reduction of it would be unthinkable.

"The value of a large number of amateur stations and trained operators throughout Australia will be very great in the event of future emergencies."

This letter was written to me by a constituent of mine, and I believe, representing my constituents to the best of my ability. The writer states further—

"The hobby is at present spreading interest and knowledge among the young, and supplies the technicians for the many branches of electrical industry, promoting international goodwill by the countless overseas contacts which are made on 40 metres. It also keeps many people happily occupied in their spare time. Many boys from our schools and universities are attracted to the hobby as a result of seeing amateur radio displayed in their classrooms."

"Accordingly, I sincerely ask you to consider this subject carefully when it is raised in the House, and to defend the rights of amateurs to use the already over-limited frequencies."

I think that letter supports the contentions that have been put forward by the honorable member for Paterson (Mr. Fairbairn), the honorable member for the Australian Capital Territory (Mr. J. R. Fraser), and other honorable members from both sides of the House who are concerned at this intrusion into the rights of amateur radio operators. I think that the Postmaster-General (Mr. Davidson) to consider the changes that are mooted, and to meet the wishes of the amateur radio operators. When they have done that they are not asking for much. They are only asking for the right to enjoy a pastime that spreads international goodwill, trains people in career and is of benefit both to themselves and to the nation. I urge the Government to give effect to the opinions expressed by honorable members on both sides of the House concerning this proposed intrusion into the rights of amateur radio operators, who do much to further the interests of this country.

MR. FAIRBAIRN (Farrer).—I am in agreement with the honorable member for Grayndler in the use of the word "intrusion" into the radio frequencies to amateur radio operators. I hope the Postmaster-General (Mr. Davidson) will take another look at this and see whether anything can be done.

MR. BRIMBLECOMBE (Marston).—I would like to direct the attention of the House to the feeling of frustration which exists among the amateur radio operators of Australia since the Government has been made that a restriction of the frequencies available to them has been recommended by me, I understand, a technical committee.

I am mentioning the feeling of frustration that exists among amateur radio operators because of the announcement that they are to lose a proportion of the bands on which they are working. I am sure that the members of the amateur radio operators of Australia banded together and decided to send a representative overseas to attend a conference at an international conference to be held in Geneva. They will try to fight mainly commercial interests to retain these bands. Imagine their frustration and anger if they are told that, through the technicians of the Postmaster-General's Department, has sent a recommendation that they should lose one-third of the wavelengths they are using at present. It seems to be a foregone conclusion as far as this Government is concerned. It seems to me that the position with regard to the forthcoming conference is untenable.

The statement has also been made that the amateur radio operators are to lose the bands that are allocated to them at present. A monitoring system has been used to ascertain whether these bands have been used. Let me remind the House that the majority of amateur radio operators work all day and can operate their radio equipment only at night or at very early hours. If the bands are lost of these bands, it will be found that these are the times when they use the frequencies most. To whom is it proposed to give these frequencies? I think that the bands are to be some commercial interests, either overseas or in this country; and in any case it will probably be given to the commercial interests. When one considers the service that these amateurs have rendered the country over the years, this treatment of them is just not good enough.

There is another matter that I want to mention in this connection. It concerns the restriction placed on amateur radio operators which they can broadcast only in English. In every other country, amateurs may broadcast in any language, and I think that the broadcast may be in English only. No other group does so much towards cementing good international relations as the amateur radio operators.

POSTMASTER-GENERAL'S REPLY

MR. DAVIDSON (Dawson—Postmaster-General).—I want to confine my remarks this afternoon to certain references that have been made in the House concerning the amateur radio conference, a conference of the members of the International Telecommunications Union, to be held in Geneva commencing on 17th August. I am sure that the House will be interested in this debate, references have been made to certain proposals which are under consideration and which affect the Australian amateur radio operators. It has been observed by me that there exists a considerable amount of

Amateur Radio, June, 1959

Page 13

BOOKS OF THE YEAR FOR RADIO & T.V. ENTHUSIASTS

★ A.R.R.L. HANDBOOK, 1959 Edition	46/3 plus 2/- post.
★ RADIO HANDBOOK, 15th Edition	85/6 " 2/- "
★ BASIC TELEVISION, by Grob, 2nd Edition	66/9 " 2/- "
★ RADIO DATA CHARTS, by Beatty & Sowerby, 5th Edition	12/6 " 1/- "
★ WORLD RADIO HANDBOOK FOR LISTENERS, 1959 Edition	24/3 " 9d. "
★ BEAM ANTENNA HANDBOOK, by Orr	32/6 " 6d. "
★ CARE AND REPAIR OF HI-FI, by Feldman	31/- " 1/- "
★ RADIOTRON DESIGNER'S HANDBOOK, by Langford Smith	55/- " 2/6 "
★ T.V. SERVICING GUIDE, by Deane & Young	20/9 " 1/- "
★ G.E. TRANSISTOR MANUAL	20/3 " 1/- "
★ RADIO VALVE DATA—WIRELESS WORLD	8/6 " 9d. "

McGILL'S AUTHORISED NEWSAGENCY

Est. 1860

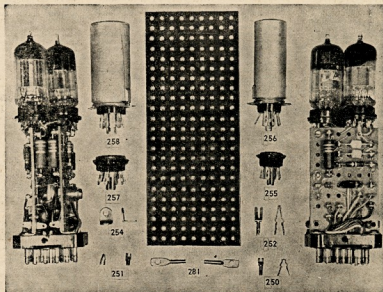
183-185 ELIZABETH STREET, MELBOURNE, C.1, VICTORIA

"The Post Office is opposite"

Phones: MY 1475-6-7

REDUCE THE SIZE AND COST OF YOUR NEW EQUIPMENT

TYPICAL
UNITS
USING
ZEPHYR
MATRIX
SYSTEM



Leaflets and
Price List available
from all
leading Wholesalers.



Enquiries invited
from
Manufacturers.

ZEPHYR PRODUCTS PTY. LTD.

58 HIGH STREET, GLEN IRIS, S.E.6, VIC.
Phones: BL 1300, BL 4556

making public the information which was the subject of my statement, and because I had accused it of being a "leak". I am sure that you know, Mr. Speaker, and I draw attention to the fact that the proposals which had gone across Australia's main radio have been developed by a sub-committee within the Minister's own department, and had it not been for the pressure which I and others had applied to the Minister, this information would not have come to the light of day. On the Minister's own statement, the debate which we had in the House last night would have been a mere formality. The people of this country would have been kept in ignorance of these proposals which are of tremendous importance.

The House will agree whether or not there was reluctance on the part of the Minister when I point out that during the three months from the end of January until almost the end of April, the Minister refused to give access to these proposals. I would like the Minister to say asking that I should be given access to these proposals. I had no answer to that correspondence, except verbally, and clearly there was reluctance on the Minister's part to disclose what was in these recommendations although they had been sent overseas for the express purpose of publication to every country, and that was a signatory to the international convention.

On the 13th March the Minister gave me a copy of an inter-departmental memo which set out the information I wanted. Unhappily, the document was marked "confidential". I may say that, although the relevant information in Australia, which knew something of the matter, kept the contents of the document confidential, it is not so with the Minister. On 13th March, that either he must withdraw the letter or he must withdraw the confidential restriction on the memo, will be clear to the House. That information, which I have sought and which I believe ought to be exposed to public debate is not much good if labelled "confidential".

In the meantime, the Minister had been co-operative to the point of arranging a meeting in Melbourne of the frequency allocation sub-committee of the International Telecommunications Union and an opportunity, together with officers of the Wireless Institute of Australia, to meet that committee and discuss the matter. I think, somehow, that the Minister has been misled by the problem requires—the matters contained in the recommendation. Now, Sir, I think that this is a matter which is being kept secret, and that this matter was going to work out to the detriment of the Australian amateur. The fact was that the Minister was not getting on at all satisfied that the right thing had been done, and as each section of the proposal was discussed I clearly stated to the Frequency Allocation sub-committee that the fact was that in the whole matter the amateurs of this country were getting only second priority. It was that matter of priority that I wanted to correct.

Therefore, there is no ground at all for the mistatement in the Minister's address that I had indicated at the end of that conference that I was satisfied that the matter could be dealt with in a businesslike way and sympathetically. What I did say was that I understood the very considerable problems which the Minister was facing in this respect, and that I believed that the department had brought to the matter a sense of responsibility and had been very careful after the public interest, as it saw it, but that we quarrelled as to what really constituted the public interest in a matter of this kind. Sir, I was not under any obligation to make a parliamentary period drawing rapidly to a close, that I felt obliged to assure the Minister that I was not under any obligation to do so in one way or another because I felt it was too important to let pass without some public debate. Now, of course, Sir, the Minister makes some virtue out of necessity and says that if he had not published the information the debate would not have ensued. That is perfectly correct, but it is not so with the Minister. He has an opportunity to know what is proposed in part for them, and those interested in the matter. I am sure that the Minister has given the House and in another place have been given an opportunity to express a view, which, I may say, is very much in favour of the retention of the privileges which Australian radio amateurs enjoy.

The Postmaster-General applied the term "rationalisation" to those proposals. But, Sir, I think that this is a term which should not be labelled with another name, when one particular band is to have one-third cut from it, and another band is to have one-third added, and when the amateurs for international communication—is to have one-third lopped off from what we have, and what we have represents the best that we have, and what we have for international use by amateurs on the occasion

of the last International Telecommunications Union conference. On the 29-metre band, also used by international workers, one-third is to go and one-half is to be cut from the band which amateurs enjoy at 5 metres. Now, in the face of this sort of operation, it is not much point in the Postmaster-General asking us that there is no intention of abolishing amateurs in this country, because the path to oblivion for the amateur operator in this country will be strewn with this sort of intention. There comes a time beyond which these bands, although maintained, are of no use and will be unusable. We are rapidly approaching that situation, and I would be particularly interested to know what the Postmaster-General and the department would do to reduce the deductible minimum beyond which amateurs would disappear and with them a great asset to this country.

The Minister has pointed out that nobody in this House is competent to express a view on this technical problem. With that I would quarrel. But assume it is correct that nobody in the Government, in this House, or—let us face the fact—the Minister himself, is competent to deal with this matter on technical grounds, and that therefore the Minister would be obliged to accept the technical advice of his officers. I draw attention again, as I drew attention before, to the fact that these technical officers are the people who have drawn up these proposals. Sir, it is an odd circumstance that the Minister, who is not competent to include themselves from having a view on a technical problem because their members are not competent, should be the officers of the department to deal with it.

I think that something of the attitude of the Postmaster-General's Department was indicated in the Minister's own words when he said, as an aid, nevertheless, may advise—and this is the best advice—is that Australian radio amateurs do not suffer by comparison with our American counterparts. The Minister said that in the bands that I referred to, two of them in particular, the Americans are operating on the 5-metre band made available to amateurs by the International Telecommunications Union. As yet we, on our part, have been restricted by purely local opinion to half of that band. It seems to me that the Minister is not understanding that Australia will abide by the reservations made for world amateurs by the International Telecommunications Union, but it is not going to be very satisfactory if we send our delegation to Geneva with the firm intention in their minds to reduce the bands of the International Telecommunications Union to an international agreement, and then to have the Postmaster-General's Department apply some of these proposals as options. I think we had never gone to the international conference. However, Sir, my aim is not to stir up any misunderstanding or ill feeling about this matter. It is to make it known to the Government to review the matter in the light of the representations which have been made so widely in the last week, and do something better for the amateurs of this country who, in my opinion, and apparently in the opinion of the House, deserve better of their Government.

QUESTIONS—13th MAY

In the House of Representatives, on Wednesday, 13th May, Dr. Evatt, Leader of the Opposition, directed a question to the Acting Prime Minister (Mr. McEwen).

DR. EVATT.—I desire to ask the Acting Prime Minister a question. I am sure that what has been raised in the Opposition party room this morning and to which my colleagues, the honorable members for Canberra, Sydney, Melbourne, Shortland, Newcastle and Parkes, and many others including particularly the honorable member for Paterson, have devoted special attention in a recent session, is of the probable reduction, perhaps of a drastic character, in the number of amateur bands available, which has been proposed by the General's Department for adoption at a forthcoming Geneva conference. As the right honorable gentleman knows, the number of Australian amateur bands has been reduced in war years and in situations of emergency they give services of considerable importance to the public. The scientific work, especially in tracking satellites, has become most important. They are amateurs; they are not professionally engaged in the essential work.

The wide feeling amongst them, that not only their interests but the public interests will be injured, and I ask the Acting Prime Minister to look into this matter. I know that Dr. Evatt has given his own view, but it is mainly a departmental view. The

details of the proposal and the concern that has been created were explained by the honorable member for Paterson, and I am sure that in this field, I ask the Acting Prime Minister to confer with the Postmaster-General to see whether some protection can be afforded to the amateur. The matter should not be left over to some group of subordinate officers, who might decide on a serious reduction in the available bands. We all regard this as a matter of great urgency.

MR. McEWE.—I regret, as the right honorable gentleman will regret, that my colleague, the Postmaster-General, who has been handling this matter, is somewhat indisposed and in the care of a doctor today. He is not here today, but he is unable to be present. The right honorable gentleman and I have common ground in that we both regard this as a matter which my colleagues in the Government parties have also devoted themselves to this problem. We all concede that it is of very considerable importance and that interests likely to be affected are not only those of the amateurs. The interests of the amateurs, who have worked with great value to the community and with satisfaction to themselves, must be reconciled with the broadening public demand for the allocation of bands. I am in mind such essential services as rural fire and police taxis which require the allocation of a band. These are real technical problems with regard to which I am not qualified to speak.

My colleague, the Postmaster-General, has arranged for two of the most senior officers of the department, who in fact are working on this matter, to be in Canberra today and tomorrow. On behalf of the Postmaster-General I can say that those officers will be available for consultation with members of the Parliament who have a particular interest in this matter and who regard themselves as having sufficient knowledge to be able to give a statement upon it. Those officers will be available not only to members on the Government side of the House, but also to members on the Opposition side. I am not able to say that my colleague, the Postmaster-General, has arranged that a representative of the organised amateur community, who is a member of the ranks, will be recognised as an observer at the Geneva conference so that his view, if not his views, should be brought to the attention of the Government.

Finally, my colleague has intimated to me that he recognises that there is so much general interest in this matter and such legitimate grounds for considering the public interest that he has arranged for the Minister to reveal, that he has said that he would prefer the final decision to be made by Cabinet rather than by himself.

On the same day (13th May), in the Senate, Senator O'Byrne asked a question on this matter of the Minister representing the Postmaster-General.

SENATOR O'BYRNE.—I ask the Minister representing the Postmaster-General a question without notice. In view of the conditions that have been made by amateur radio operators, who are affectionately known as "hams", in regard to the proposal to restrict frequency bands made available to Australian amateurs, I am anxious to know whether the appointment of a parliamentary select committee to hear the claims and report to the Parliament on the position of the 3,000 operators of the amateur radio bands, who are freely maintained communications when normal systems have broken down, who have an organised system of the Wireless Institute of Civil Emergency Network which comes into immediate action in times of distress, and who have every reason to believe that their operations are of great public utility, if the recommendation to restrict frequency bands is accepted by the Government?

SENATOR SIR WALTER COOPER.—The honorable Senator's question deals with a matter of great importance, and I shall be glad to answer it three days ago by a number of Senators. I think that this is probably an appropriate time for me to read a statement in reply to the question that the Senator has asked, because Senator O'Byrne's question deals with the same matter. The Postmaster-General has brought the proposal to the attention of the Australia's proposals for discussion at the forthcoming administrative radio conference of all member nations of the International Telecommunications Union, which will commence in Geneva on 17th August, 1959.

The proposals do not provide for drastic reduction of the frequency spectrum now available to amateur radio operators, but are framed in the best interests of all users. In

particular the portions of the frequency bands concerned are most urgently required to improve conditions for fixed and mobile radio services such as: Rural fire brigades, Overseas Telecommunication services, Radio, and local television, and authorities defence services, Australian national broadcasting services, Radio Australia, and private industrial and commercial services.

The proposals affecting Australian amateurs provide only for reduction of the existing band 11-15 megacycles to 3-5.7 megacycles, the 7-11.5 band to 7-7.1, and the 14-14.35 to 14-14.25 and the 50-60 band to 56-58. There are no proposals for the 3-5.7 megacycles band. The bands now allotted for amateur use and which provide considerable capacity for expansion of their activities.

In some of the bands now available to the amateur body, observations over a long period indicate that in general they are being worked below capacity, and even the proposals being carried at Geneva there will still be ample frequency space for existing and future amateurs to operate satisfactorily. It should be emphasised that in Australia there are approximately 3,700 licensed amateurs, whereas in the United States of America there are approximately 180,000 who have practical, much the same frequency space for their operations.

The proposals for revision of the frequency allocation table obviously require the most careful consideration of the requirements of all services by the Frequency Allocation Sub-committee, an expert advisory body which was set up to consider the matter. When the amateur bands were examined representatives of the Wireless Institute of Australia were invited to be present and were given full opportunity to study proposals and present their own views, which were given most sympathetic consideration.

SUGGESTED ACTIONS

● Parliament adjourned on 14th May but it is not too late to contact your local Member. During recess, Members are in touch with Ministers and Ministers are still responsible for their Departments. Keep the matter before your local Member and urge others to do so.

● The recommendations of the Frequency Allocation Sub-committee were sent overseas before they were released in Australia. It is therefore in the interest of every Radio Amateur to send a copy of this issue to his overseas contacts. We have in this magazine the means of conveying to interested bodies in other countries the weight of political opinion backing the Amateur position.

Extra copies of this issue may be obtained from the W.I.A., Victorian Division, P.O. Box 36, East Melbourne, or we will post a copy direct to any address you supply for 1/9 including postage.

The final proposals developed were arrived at in the best interests of all organisations which must make use of the spectrum. The report is fully conscious of the work done by the amateur body in fostering international relationships and in rendering valuable assistance to other countries. It is not disrupted, and there is a proper appreciation of the need for retention of a reasonable and workable allocation of frequencies for their purposes. However, there are other and most important obligations to many other services which play a vital part in national development and operations, and the proposals for revision of the frequency table to be discussed at Geneva are designed to promote the best interests of the country from an overall point of view.

It is emphasised that the claims of the amateur bodies were not the only ones arriving in final proposals. Australia's delegates will go to the Administrative Radio Conference with completely open minds and will have to convince the representatives of other nations with the object of arriving at the most equitable apportionment of the frequency spectrum.

In addition, the Postmaster-General has informed me that two of his officers, Messrs. Skerrett and Pearson, have now arrived in Canberra. They are only too willing to meet any person interested in the matter and to answer any questions put to them. If any honorable Senators wish to do so, I can arrange for them to meet the two officers.

SENATOR WILLESEE.—My question to the Minister representing the Postmaster-General is supplementary to that asked by Senator O'Byrne. That statement which the Postmaster-General has just read was full of departmental jargon—

THE PRESIDENT.—Order! Is the honorable Senator asking a question or is he criticising the statement that has just been read?

SENATOR WILLESEE.—I was not criticising.

THE PRESIDENT.—Order! The honorable Senator will ask his question.

SENATOR WILLESEE.—That is what I was going to do, with your permission. Although the statement was rather wordy, it did not answer the question asked by Senator O'Byrne. That question related to the same matter about which Senator Hannan made a speech a few days ago. The sentiments expressed in that speech, incidentally, were shared by honorable Senators on both sides of the House. I ask

To indicate to members the feelings of Amateurs in regard to the situation at the time these speeches were made in Canberra, some excerpts from a tape made by VK2IG, Arch Cox, and broadcast by VK2WI and VK5WI on 10/5/59, will be of interest. Herewith are portions of his tape:

I have no doubt that Amateur Radio in Australia is confronted by the worst crisis in its history.

It was no overstatement by our fellow member Alan Fairhall in Parliament a few days ago that the matters which, until last weekend, had been kept secret from most of us, and from the Australian public and the public, although revealed to others overseas, fore-shadow irreparable damage to our fellowship and may ultimately threaten our very future on the air.

We are up against it as never before. One thing is clear: our frequency on our three most wanted bands are at stake. Time and circumstance are against us.

If any of you had any doubts about that, you are not realists if they were not decisively resolved by the defence of his Department which was really a confirmation and consolidation of the amateur case against which the Postmaster-General, Mr. Davidson, made to Parliament on Thursday (7/5/59).

The events of this week have splendidly shown that the record of Amateur Radio is better known, and the job it has done for Australia is better understood and valued by outsiders from our ranks than I for one, and, I think, probably most of you, had ever supposed.

It has been a tremendously heartening experience this week to see member after member, in each House of our national Parliament, from all parties and from all States, and from every section of the Australian community, rise in Parliament in our defence.

From that spectacle I am emboldened to hope that what many of us have said in this room, think on this matter, Australians generally also know and think.

That our greatest hope in withstanding the attack which has been made upon us by an authoritarian and entrenched, but not enlightened or liberal bureaucracy.

Up to date, the voice of the Postmaster-General has been against us and those who have supported us are—

Mr. Wadsworth, Hannan from Victoria, Wood from Queensland, Laughton from South Australia, Willesee from Western Australia, and Wright from Tasmania.

And in the House of Representatives our sponsors have been Professor Bland, and Messrs. Luckock, Reynolds, Bury, Daly and Fairbairn from the House of Representatives, Sir John and Mr. Bird from Victoria, Mr. Brimblecombe from Queensland, Mr. Jim Fraser from the Australian Capital Territory.

It is telling you of their help I am brought to the most practical and constructive things I want to say to you.

But I do not want to say this, because I have no charter from the President, and would accept none, to join with Divisional officers in a mere essay in rabble rousing.

The Minister: Is it not obvious from his statement that Australian radio amateurs will be affected to a greater degree than radio amateurs in any other country of the world, and particularly the United States of America, by the proposed cut in the frequency spectrum? Although we appreciate the opportunity to discuss the matter with the departmental officers, is it not possible, even at this late stage, in view of the technical nature of the problem, to give the radio amateurs the opportunity to discuss this matter with the departmental officers before the delegation goes to Geneva?

SENATOR SIR WALTER COOPER.—I understand that a representative of the association will attend the conference at Geneva, at his own expense. It is true that he will not have placed the case before the Postmaster-General has made arrangements for him to have a full discussion with the delegates to the conference, so that he will be able to place before the views of the amateur radio operators. As Senator Willesee apparently is very interested in this matter, I think the best thing he could do would be to have a discussion with the officers from the department, whom the Postmaster-General has so graciously asked to attend the express purpose of speaking to members.

AMATEUR REACTION

If you don't honestly believe that Amateur Radio is a thing of the past, you don't realise that it record of achievement in technical progress, in national defence, in humanitarian and emergency service, in international impact, in the service of the community, standing, in simple, ordinary human decency of communion between man and man and between man and his machine, is sustaining, time now to another channel.

But if you do believe that on record we have earned the right to the place in the Postmaster-General's raw deal, that we are entitled to a better one, come along and pull your weight. The first steps are simple but vitally important.

We have had a magnificent gesture of what I hope is only preliminary support this week. But it is still a long way to go, and it is so only because the immense latent reservoir of goodwill so plainly waiting to be tapped has not yet been stirred.

That predominantly is the fault of those listening to me. It is so because you have not sought the help you are entitled to ask.

Every one of you who has not yet done so should telegraph immediately to his member of the House of Representatives and to at least one of his State or Divisional members, in the coming week, actively to oppose the cut on our operating facilities confirmed by the Postmaster-General. To do this is your democratic right as a member of our Australian community.

Parliament will adjourn on Thursday, and is unlikely to reassemble until August. In August, too, the I.T.U. meeting will be assembling in Geneva to decide your future.

Every one of you should telegraph to your member. Put your case to him, and answer the counter claims. State your case as simply, and as clearly as you can, and make it as brief as possible.

If, when the Parliamentary recess begins in a few days' time, you can call on your Member at his home for a personal interview, do so by all means.

Tell your friends about what is happening. Try to show them the picture in the Press. Public opinion is the best ally we can hope to enlist now, but we must be our own recruiting sergeant.

I would urge all of you to read in your nearest public library the reports in this week's Hansards from the Federal Parliament.

These reports are published elsewhere in this issue.—Editor.)

But to give you the reassurance that an important Statement by the Parliamentary Secretary, that the ever responsive sense of Parliamentary fair play has been aroused for us, and that the Government has no intention of what we should seek to build, I quote to you the brief glimpse that my time will allow of what has been said for us in Parliament in the last few days.

[Arch VK2IG then gave pertinent extracts from various members' speeches in Parliament, which have been printed in full elsewhere in this issue.—Editor.]

You may have noticed that I have not mentioned the name of the Minister who has helped us. That is Mr. Alan Fairhall. I have left this to mention separately because, as all New South Wales members would expect, his work for us has been magnificent.

MR. ALAN FAIRHALL, M.H.R., ON THE AMATEUR RADIO ISSUE

On Sunday morning, 17th May, VK-2WI (the W.I.A. New South Wales Divisional station) arranged an Australian wide coverage so that Mr. Alan Fairhall, M.H.R. (VK2KB), could give a talk to the Amateurs of Australia on events since the publication of the Proposals to cut Amateur frequencies.

The very first of the P.M.G. band by VK2AWX and relayed by many other stations on the 14, 21 and 28 Mc. bands. Reports have indicated that his speech was received very well in all States of Australia, New Guinea, and New Zealand.

So that members who were unable to listen may know what was said, herewith is a copy of his excellent talk.

Good morning fellow Amateurs. The line-up for this morning is rather unusual. But I'll see what I can do to justify the efforts that have been made to gather an audience.

The first of our speakers is Mr. Alan Fairhall at the Geneva Conference of the I.T.U. is in full gallop and I thought it might be helpful to make a report on the general position. I hope that the members of the House will be interested in the job, and if we are going to be successful it must be that way for the next few months, with very few exceptions, everyone, throwing in everything they have to secure the greatest possible support for the main cause. I have been very clear at the outset of this talk this morning that now the problem has moved into the political sphere, I've become the spokesman only by virtue of being a member of the House of Federal Parliament. I have had a lot of assistance, and will get a lot of assistance, and the House is not without good friends on every side of the House, I'm happy to say, and in both Houses of Parliament.

When the first session of Amateurs and the I.T.U. in Parliament a couple of weeks ago there was unexpected and powerful support from many quarters, perhaps most notably, I've been told, by the Hon. Mr. Jim Fraser (the member for the A.C.T.) and more recently from Mr. Ald. Jones (the member for the Murrumbidgee). I have been told that Mr. Fraser has been very active in the Labor Party Caucus, and while I was taking the matter into the Government Party room, Mr. Ald. Jones has been very active in support for the proposition that the P.M.G. Department should withdraw, review and re-draft the present Geneva Proposals.

By now I think everyone will be aware of the general routine and I repeat it only to emphasise one or two points which I'm happy to say might bring a little comfort to Amateurs. The I.T.U. Conference will begin at Geneva at the end of August. To the best of my knowledge, as far as we are concerned, its main job will be to carve up the frequency spectrum amongst the increasing number of services who want space. The normal scheme is that in March the proposals of the member countries went abroad to Geneva. Towards the end of this month we would expect them to arrive in the form of a Budget of Proposals. The P.M.G. Department will then do its homework on them in preparation for the Conference later this year.

Now the points which I think may bring comfort are, firstly, that what has gone abroad are many proposals, and secondly, that they will find no support at the Conference and there will be no re-arrangement and, I would hope, no change of position. The present position is that the Australian delegation is going over to put forward a proposal for reductions in our 80, 40, 20 and 5 metre bands, and to propose that other member countries who may produce similar proposals for reductions. Our part is therefore to change the position of the Government of the member countries that the delegation goes away with a new charter—that of preserving our bands and to propose any reduction to be put forward by others. I think we might all retire for a few words of quiet prayer on that one. The second piece of comfort I think arises from the fact that the Post Office that despite the Proposals being sent away, their thoughts are still quite flexible. They may change their view, perhaps upon persuasion and sign up, if general agreement is to be reached at Geneva there will be need for some flexibility in the brief which the delegation takes to the

Conference. It will be John Moyle's of the fact, but I hope not unwelcome task, to see that the wishes of the Amateur, and of course our high hopes go with him.

The work on this exercise of preserving our frequencies began last year when the P.M.G. agreed to accept a W.I.A. observer to the Geneva delegation. Round about mid year, Max Hull, our Federal President of the W.I.A., went to Canberra to see the Hon. Mr. Hannan of Victoria, who I think had introduced the proposal originally, we had a little discussion, a good deal of it with the Minister who was most co-operative. I ought to point out I think that the appointment of a delegate or an observer to go with the delegation was a departure from precedent of very great value to us. Anyhow I took the opportunity of assuring Max Hull, the Federal President, that he the time I would do what I could to supplement the Institute's own efforts, since it was quite clear that the incident must get into the political field. Since then I've been in constant touch with the Federal President Max Hull, and with John Moyle to keep him advised as to what was going on.

On one occasion I am bound to say that I was heartened by an appreciation of the Federal President and Federal Executive that something was being done to help the kind by undue reference to the P.M.G. Department merely because they are the licensing authorities. It's also pleasant to know that we have that no one is taking any undue relations between the Institute and the P.M.G. Department by standing up in defence of what we do. The fact is that the P.M.G. can give you the assurance that the Department and the Government understands very well and acknowledges the fact that we have to do whatever we can do to cultivate public support for the quite reasonable case we have to submit; so that win or lose in the battle for frequency channels will be a matter of course. The fact is that the Amateurs and the P.M.G. Department are having a difference of opinion, and that the difference is of national interest of Amateurs and commercial interests having a need for frequency channels.

We were somewhat in the dark in the early stages of the matter. I think that the proposals for frequency re-arrangement had gone forward. I sought from the Minister the right to know what was going on, and I was told that particularly to the W.I.A. It took some little time but the story was eventually released and was given in this broadcast here and in Victoria.

Meantime the P.M.G. had been good enough to arrange for myself and Max Hull, together with Mr. Ald. Jones, to attend the next meeting of the F.A.S.C. This was done, I'm sure, in the hope of convincing us that the right and proper thing was being done well. We met the committee in an all-morning session and came away without being convinced, except for one thing; that was in the broad scheme of things Amateur Radio enjoyed only a low priority in Departmental thinking. Of course it's from this fact that our present unhappiness and protest arises.

Following publication of the proposed frequency cuts, I made a statement in the Parliament a couple of weeks ago which met with very much the same response. I came in to support me; a considerable number of Amateurs contacted their local members by letter, phone and personally to seek their support, and I received a number of telegrams myself, for which I hasten to thank you but to assure you that I don't really need the support. I hope we need an all-morning session and I don't acknowledge them by mail because you will agree that the effort can be put to better advantage.

Now since all this, there has been some quite worthwhile developments. First of all the Government has noted the importance of the issue, and has given widespread support. On Wednesday last the Acting Prime Minister, the Right Hon. John McEwen, agreed that the Government would have an all-morning session of the Federal Cabinet, which means that our representation has thus far been quite useful. Then again the P.M.G. arranged for the two senior officers of his department to come with the matter, Mr. Skerrett (Deputy Director) and Mr. Pearson (of the Radio Branch) to discuss the matter with the Amateurs and a question period with members on both sides of the Parliament. The meetings were very successful. I think that the Government and there for the moment the matter stands.

I doubt if any Amateur doesn't realise the difficulty facing the P.M.G. Department in

finding frequencies for the increasing commercial applications. It is clear that our priority is being fixed, that the Government is going to higher priority demands. But it is quite easy to regard the Amateur as using valuable spectrum space to inferior use having only low priority. But the Government is not so sure because these are the people who want our 80 and 5 metre space, whilst international broadcasts is within the range of our 40 metre band, and long distance communication services our 20 metre space.

We have therefore put forward in the strongest terms that the Government should have an internationally recognised service with bands reserved for its use by international agreement. We put forward what I think might be a conservative plan that the availability of the Amateur body in 1939 put this country's defence signals six months ahead, and that sort of service is beyond doubt I think it is to become a technically efficient nation we can't afford to destroy the opportunities for self training and experience in electronics which our Amateur privileges provide. You can no doubt think of a dozen more reasons and I sincerely hope you will and that you will pass them on.

The P.M.G. Department claims that our bands are not fully occupied and that we will not be unduly inconvenienced by the proposed changes. I think that I will be able to answer to that. I pointed out that the misery of having to earn a living kept Amateurs off the air for very large parts of the day and I understand there is a rough sort of prohibition against vee wheels in Amateur bands. Also, considering the necessity for the Government stretches of our bands although we have to admit that the getting rid of these stations, belonging to people who are not members of the House, who take their responsibilities too lightly, is not an easy one at all.

I think it is necessary to fix in the public mind that the exchange of signals at home and abroad is becoming more and more important; if bandwidth is going to be reduced, over crowding is going to be produced and the Government is going to be in a very bad position. This sort of situation will kill Amateur Radio without the necessity of taking away the whole of our frequency bands.

Now what has been gained, where do we go from here? The guards to this point include the evidence of widespread recognition of the value of Amateur Radio and expressions of good will from the Government. Secondly, we have an assurance that there is some flexibility in the official attitude. This is the fact that instead of the Proposals being looked at only at the Departmental level, they are now to have Cabinet scrutiny. Finally, and this is the most important point, members of Parliament at the meeting with our post officers last week were given an assurance that we in Australia will retain the same status as in the future in defence communications by local option. In other words if Geneva cuts, the status quo in Australia remains.

These gains dictate the action from here on. I think the members of Parliament could be the most helpful and I suggest that you write to him, see him, invite him to your club—if you can, and if you can't, write him a letter, possible his interest. It wouldn't be a bad idea to run over the bands for him. Let him see how tough things are already. Remember me to the Post Office and to the Government, we have his interest and we will have his sympathy. Show him how essential Amateurs are to Australia's future in defence communications, and industry. Ask him to take what steps he can to convey these views to the Government so that they can be taken into Amateur Radio and reconsideration of the present Geneva Proposals.

Finally chaps, because I know I am talking to you, I think the members of Parliament could be the most helpful and I suggest that you write to him, see him, invite him to your club—if you can, and if you can't, write him a letter, possible his interest. It wouldn't be a bad idea to run over the bands for him. Let him see how tough things are already. Remember me to the Post Office and to the Government, we have his interest and we will have his sympathy. Show him how essential Amateurs are to Australia's future in defence communications, and industry. Ask him to take what steps he can to convey these views to the Government so that they can be taken into Amateur Radio and reconsideration of the present Geneva Proposals.

A Two-Stage Transistor Xmitter

A. G. SMITH,* VK3AN

Possibly some of the readers of this article have, like the writer, regarded Transistors with some apprehension, however the circuit described here is simple and seems to perform quite well with a minimum amount of trouble.

Basically the transmitter consists of a crystal oscillator operating on 7 Mc. plus an amplifier operating at the same frequency. The transistors used seem to be readily available and operate at this frequency quite successfully.

The original idea of the project was to use the unit as a handy-talkie transmitter and receiver. The receiver has been completed for some time now, but the handy-talkie has not eventuated due to some success using the transmitter on the normal 7 Mc. dipole.

The little rig has been copied on c.w. at RST 549 in Adelaide with Ted VK5JE providing the necessary ear strain in that State, and VK7MX and VK7MZ on the Apple Isle. These QSO's were not established with the transistor rig, but were part of a contact using the QRO ten-watt transmitter.

However, contact was established and maintained with Cliff VK3AJA at Stratford with sgs at RST 449. Cliff did hear and copy the little rig on phone during a later QSO with him.

The unit was constructed on perforated paxolin strips using both sides for mounting components; coil formers are 3/8" diameter polystyrene, and trimmers 3-55 pF. mica ceramic.

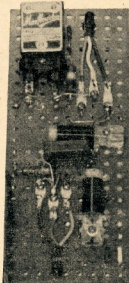
Modulation was accomplished by using a carbon microphone with 1.5 volts applied and coupling via a small speaker transformer in the negative 6v. line to the p.a. collector. The ratio of the transformer was not critical.

The coupling system to the antenna did present some difficulties and after trying many methods, the system as shown proved most successful.

A sensitive field strength meter was used to tune the LC circuits to resonance. The meter used was 0-50 μ A, and full scale plus readings were easily obtainable close to the resonant circuits. When the transmitter is coupled to the antenna, the meter was used to

peak the circuits by closely coupling to the feedline.

A receiver was constructed in a similar manner using an OC44 as regenerative detector and an OC71 as audio amplifier. W6's on c.w. were copied using the 7 Mc. dipole, but with an end loaded whip approx. 4 feet long signals were down and only locals with RS 59 signals could be heard.

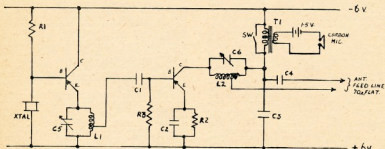


The transmitter seems to suffer the same fate using the whip antenna, but as experiments had temporarily ceased along these lines, the possibilities are not known as yet.

In conclusion I would like to thank all the gents who strained their ears and receivers trying to sort the milliwatt signals out of the noise level, but believe me, it is interesting and astounding just how QRPP will make itself heard.

Please try it fellows, and lots of luck.

*33 Field Avenue, Edithvale, Vic.



- C1—800 pF.
- C2—0.01 μ F.
- C3—0.001 μ F.
- C4—100 pF.
- C5, C6—3-55 pF. trimmer.
- T1—250K ohms, 1/4 watt.
- R2—220 ohms, 1/4 watt.
- R3—2K ohms, 1/4 watt.
- Transistors—Two OC44.

- L1, L2—60 turns tapped at 15 turns, close wound with 34 s.w.g. enamel, formers 3/8 inch polystyrene.
- XTal—7 Mc. band.
- Sw.—For c.w.
- T1—Small Speaker Transformer.
- L1 and C5 to resonate at approx. 6.5 Mc. for large "XC" at xtal frequency.
- For c.w., key in either h.t. battery lead.

PREDICTION CHART, JUNE '59

Me. E. AUSTRALIA — W. EUROPE S.R. 24	0	2	4	6	8	10	12	14	16	18	20	22	24	Me.
GMT	45	28	21	14	7	0	7	14	21	28	35	42	49	
E. AUSTRALIA — W. EUROPE L.R.	0	2	4	6	8	10	12	14	16	18	20	22	24	
	45	28	21	14	7	0	7	14	21	28	35	42	49	
E. AUSTRALIA — MEDITERRANEAN	0	2	4	6	8	10	12	14	16	18	20	22	24	
	45	28	21	14	7	0	7	14	21	28	35	42	49	
E. AUSTRALIA — N.W. U.S.A.	0	2	4	6	8	10	12	14	16	18	20	22	24	
	45	28	21	14	7	0	7	14	21	28	35	42	49	
E. AUSTRALIA — N.E. U.S.A. S.R.	0	2	4	6	8	10	12	14	16	18	20	22	24	
	45	28	21	14	7	0	7	14	21	28	35	42	49	
E. AUSTRALIA — N.E. U.S.A. L.R.	0	2	4	6	8	10	12	14	16	18	20	22	24	
	45	28	21	14	7	0	7	14	21	28	35	42	49	
E. AUSTRALIA — CENTRAL AMERICA	0	2	4	6	8	10	12	14	16	18	20	22	24	
	45	28	21	14	7	0	7	14	21	28	35	42	49	
E. AUSTRALIA — S. AFRICA	0	2	4	6	8	10	12	14	16	18	20	22	24	
	45	28	21	14	7	0	7	14	21	28	35	42	49	
E. AUSTRALIA — FAR EAST	0	2	4	6	8	10	12	14	16	18	20	22	24	
	45	28	21	14	7	0	7	14	21	28	35	42	49	
W. AUSTRALIA — W. EUROPE	0	2	4	6	8	10	12	14	16	18	20	22	24	
	45	28	21	14	7	0	7	14	21	28	35	42	49	
W. AUSTRALIA — N.W. U.S.A.	0	2	4	6	8	10	12	14	16	18	20	22	24	
	45	28	21	14	7	0	7	14	21	28	35	42	49	
W. AUSTRALIA — N.E. U.S.A.	0	2	4	6	8	10	12	14	16	18	20	22	24	
	45	28	21	14	7	0	7	14	21	28	35	42	49	
W. AUSTRALIA — S. AFRICA	0	2	4	6	8	10	12	14	16	18	20	22	24	
	45	28	21	14	7	0	7	14	21	28	35	42	49	
W. AUSTRALIA — FAR EAST	0	2	4	6	8	10	12	14	16	18	20	22	24	
	45	28	21	14	7	0	7	14	21	28	35	42	49	



AWV **RADIOTRON**
 OFFERS THE LARGEST SELECTION
 OF AUSTRALIAN MADE VALVES

You will find that Radiotron has the most comprehensive and reliable range of Australian-made electronic valves.
 Years of advanced engineering and exhaustive quality tests have made AWV Radiotron foremost in the field of Australian-made valves.

Sound quality is assured when you insist on Radiotron.

AMALGAMATED WIRELESS VALVE CO. PTY. LTD. 47 YORK STREET, SYDNEY

Remembrance Day Contest, 1959

The Federal Contest Committee of the Wireless Institute of Australia wishes all Australian Amateurs and Short Wave Listeners to participate in the Annual Contest which is held to perpetuate the memory of those Australian Amateurs who gave their lives for their Country during World War II. It is held on the week-end nearest to 15th August, the date on which hostilities ceased in the S.W.P.A.

A handsome perpetual trophy is awarded annually for competition between States inscribed with the names of those who made the supreme sacrifice, and so perpetuating their memory throughout Amateur Radio in Australia.

The name of the winning Division each year is also inscribed on the Trophy. In addition, the winning Division will receive a suitably inscribed framed photograph of the Trophy.

Objects

Amateurs in each Call Area (this includes those in Australian Mandated Territories and Australian Antarctica) will endeavour to contact Amateurs in all other Call Areas (VK1 and VK2 are considered to be one Call Area).

Date of Contest

15th-16th August, 1959.

Duration

From 1800 hours E.A.S.T. 15th August, 1959, to 1759 hours E.A.S.T. on 16th August, 1959. A period of 15 minutes silence will be observed by all stations on 15th August, immediately prior to the start of the Contest when an appropriate broadcast will be made from VK3WIA and relayed by the Divisional Stations.

RULES

1. There shall be four main sections to the Contest:

- (a) Transmitting phone.
- (b) Transmitting c.w.
- (c) Transmitting open.
- (d) Receiving open.

2. All Australian Amateurs may enter the Contest whether their stations are fixed, portable or mobile, but only members of the W.I.A. are eligible for awards. Portable/mobile operation is defined as transmitting and/or receiving equipment which is not connected to any private or public power mains or plant.

3. All Amateur frequency bands may be used, but no cross-band operation is permitted.

4. Amateurs may operate on both phone and c.w. during the Contest (e.g. phone to phone, c.w. to c.w., or phone to c.w. and vice versa), but may sub-

mit an entry for only one of the above sections listed in Rule 1.

An Open log will be one in which points are claimed for both phone and c.w. transmissions.

A Contestant transmitting on phone but receiving on c.w. may still enter for the phone section (and vice versa). Refer to Rule 11 concerning entry in Logs.

5. Only one contact per station per band is allowed and arranging schedules for contacts on other bands is not permitted.

6. Only one licensed Amateur is permitted to operate any one station under the owner's call sign. Should two or more operate any particular station, each will be considered a contestant and must submit a separate log under his own call sign.

Contestants operating stations other than their own shall be referred to, for the purpose of these rules, as "substitute operators." Their operating procedure will be as follows:

Phone contacts: Substitute operators will call "CQ Remembrance Day" followed by the call sign of the station they are operating, and the word "log" followed by their own call sign.

C.w. contacts: Substitute operators will call "CQ RD de" followed by the group call sign comprising the call sign of the station they are operating, an oblique stroke, and their own call sign.

STOP PRESS ANNOUNCEMENT

NOW AVAILABLE!

THE NEW A & R
**TRANSFORMER
LEAFLET**

Featuring Full Data on

- Latest POWER Transformers.
- Hi-Fi Foundation Kits.

Ask for Your Copy Today

ELECTRONIC
A & R
EQUIPMENT

A & R TRANSFORMERS

Approved for use in

**MULLARD
"2 Stereo 2"
AMPLIFIER**

Power Transformer ... PT 1884
Audio Transformer ... PT 2558

Available NOW at all A & R Distributors

VIC.: J. H. Magrath and Co. P/L, Radio Parts. P/L, Homecrafts P/L, Motor Spares Ltd, Warburton Franki Ltd. SOUTH AUST.: Gerard and Goodman Ltd, 196 Rundle St, Adelaide. QLD.: A. E. Harrold P/L, 123 Charlotte St, Brisbane; Chandler's P/L, Albert and Charlotte Sts, Brisbane; Trackson Bros. P/L, 157 Elizabeth St, Brisbane. WESTERN AUST.: A. J. Wyle P/L, 1064 Hay St, Perth. TAS.: Homecrafts P/L, 220 Elizabeth St, Hobart. N.S.W. Factory Reps.: R. H. Cunningham P/L, 16 Angus St, Meadowbank. Available from all Leading Sydney Distributors.

Contestants receiving signals from a substitute operator will qualify for points by recording the call of the substitute operator only.

7. Entrants must operate within the terms of their licenses.

8. **Cyphers:** Before points may be claimed for a contact, serial numbers must be exchanged and acknowledged. The serial number of five or six figures will be made up of the RS (telephony) or RST (c.w.) reports plus three figures which may begin with any number between, or including 001 and 100 for the first contact and which will increase in value by one for each successive contact, e.g. if the number chosen for the first contact is 053, then for the second contact the number must be 054, for the third 055 and so on. If any contestant reaches 999, he will start again with 001.

9. **Entries** must be set out as shown in the example, using only one side of the paper. Entries must be postmarked not later than 6th September, 1959, and addressed to the **Federal Contest Committee, W.I.A., Box 371B G.P.O., Hobart, Tasmania.**

10. Scoring must be based on the table shown.

SCORING TABLE

From	To									
	VK0	VK1-2	VK3	VK4	VK5	VK6	VK7	VK8	VK9	
VK0	-	6	6	6	6	6	6	6	6	6
VK1-2	6	-	1	2	3	5	4	6		
VK3	6	1	-	3	2	5	4	6		
VK4	6	1	2	-	3	6	5	4		
VK5	6	2	1	3	-	5	4	6		
VK6	6	1	2	4	3	-	5	6		
VK7	6	2	1	4	3	5	-	6		
VK8	6	1	2	3	4	5	6	-		

Note.—Read table from left to right for points for the various call areas.

In addition, a bonus of 25 points may be claimed for the first contact in each call area on 50 Mc. or above.

11. **Logs:** All logs shall be set out as in the example shown and in addition will carry a front sheet showing the following information:

Name Section
Address Call Sign
Claimed Score

Declaration: I hereby certify that I have operated in accordance with the rules and spirit of the Contest.

Signed.....
Date.....

All contacts made during the Contest must be shown in the log submitted (see Rule 4).

EXAMPLE OF TRANSMITTING LOG

Date/Time E.A.S.T.	Band	Emission	Call Sign	RST/NR. Sent	RST/NR. Rcvd.	V.h.f. Bonus	Points Claim.	Blank
Aug. '59								
15 1802	7 Mc.		VK5XU	39001	VK3XU	—	2	
15 1805	"		VK6RU	50004	VK8DB	—	5	
16 1115	50 "		VK4RZ	47135	VK5QR	25	3	

Note.—Standard W.I.A. Log Sheets can be used to follow the above form.

12. The right is reserved to disqualify any entrant who, during the Contest, has not observed regulations or who has consistently departed from the accepted code of operating ethics.

13. The ruling of the Federal Contest Committee of the W.I.A. will be final. No dispute will be entered into.

14. **Awards:** Certificates will be awarded to the winners of the phone, c.w., open, and receiving sections in each call area (Northern Territory will count as a separate call area). There will be no outright winner for Australia. Further Certificates may be awarded at the discretion of the Contest Committee.

The State to which the Perpetual Trophy will be awarded shall be determined in the following way:

To the average of the top six logs shall be added a bonus arrived at by adding to this average, the ratio of logs entered to State licences, multiplied by the total points from all entries.

Example:

Average of the top six logs +

$\left(\frac{\text{Logs Entered}}{\text{State Licences}} \times \frac{\text{Total of Points}}{\text{from all Entrants}} \right)$

Acceptable logs shall show at least five valid contacts.

The trophy shall be forwarded to the winning State in its container and will be held by that State for a period of 12 months.

RECEIVING SECTION

1. The rules are the same as for transmitting and is open to all Short Wave Listeners in Australia. No transmitting Station may enter this section.

2. Contest times and logging of stations on each band are as for transmitting.

3. To count for points, logs will take the same form as for transmitting logs. Logs must show the call sign of the station heard (instead of worked), the serial number sent by it and the call sign of the station being called. The scoring table to be used is the same as that used for transmitting and points must be claimed on the basis of the State in which the receiving station is located. A sample log is given to clarify the position. It is not sufficient to log a station calling CQ.

4. A station heard may be logged only once for each band.

5. **Awards:** Certificates will be awarded to the highest scorer in each call area. Further certificates may be awarded at the discretion of the Federal Contest Committee.

EXAMPLE OF RECEIVING LOG—VICTORIAN S.W.L.

Date/Time E.A.S.T.	Band	Call Sign Heard	RST/NR. Sent	Station Called	V.h.f. Bonus	Points Claim.	Blank
Aug. '59							
15 1802	7 Mc.	VK5XU	39001	VK3XU	—	2	
15 1805	"	VK6RU	50004	VK8DB	—	5	
16 1115	50 "	VK4RZ	47135	VK5QR	25	3	

Note.—Standard W.I.A. Log Sheets can be used to follow the above form.

BOOK REVIEW

A.R.R.L. SINGLE SIDEBAND HANDBOOK

The second edition of A.R.R.L. Single Sideband Handbook follows the pattern of its predecessor. It consists of articles which have appeared previously in "QST" and which cover the whole gamut of Amateur s.s.b.—its history, its basic principles, and practical construction articles on all types of equipment. Its treatment of the basic principles is very full and more than adequate for Amateur requirement. This portion of the book is recommended to all who are interested in Amateur Radio telephony in any form.

Among the constructional articles figure "Cheap and Easy Sideband" by WZEW—almost a standard for home-built phasing rigs.

"A Sideband Package" by W6TEU—a full exposition of a filter rig; and the Monimatch Mark II. For this last article alone the book is well worth having. Accessories for use in Amateur s.s.b. are well covered.

The book is printed in the well known "QST" format which makes it durable, easy to read and nice to handle—a not-unimportant point with a book.

This handbook is a must in s.s.b. Amateurs' libraries and is to be considered as a standard in the same light as its parent A.R.R.L. Radio Amateur's Handbook.

Publisher, American Radio Relay League. Australian price 24/—, plus 1/- postage. Our copy from Technical Book and Magazine Co., 295 Swanston St., Melbourne, and McGill's Authorised Newsagency, 183 Elizabeth St., Melbourne.

QUEENSLAND DIVISION, W.I.A.

THE 1959 CENTENARY YEAR PALM BEACH CONVENTION

13th, 14th, and 15th JUNE

QTH: National Fitness Camp,
Palm Beach, Gold Coast, Qld.

Cost: Week-end £2/5/0 full board; registration 15/- per family unit, Day Trippers 5/- per meal; registration 5/- per day.

Features: Bob Campbell Memorial Contest; 7 Mc. Scrambles; 2 Mx Tx Hunts; Blindfold Hunts; Barbecues, excellent meals; Films; Auctions.

VK4WI will also operate continuously from the Convention as part of the Centenary Year Celebrations. Special QSL cards will be awarded.

For further details, listen to VK4WI Sunday morning broadcasts.

VHF

Frank P. O'Dwyer, VK30F
150 Thomas Street,
Hampton, Vic.

Continued Es with fewer DX openings marked the last month. The peak was reached on May 2 at 1145 when Ian 3ALZ QSOed XE1PU at 89. About six XE sgs. were heard by the gang during the brief opening. Further north, 2ADE logged XE the same day. Chas. 2ADE hooked a 7E7BQ on Apr. 29. VKXTL is active and caught on Es opening. An excellent VK3 opening 2145-2250 on Apr. 29, all sgs. 89 preceded by a VK3/4 opening at 2030. In VK3 a couple of the regulars were missing and openings listed are JA1, 3, 4 on Apr. 1, VK7YK and a lot of VK3 on Apr. 9 at 2200, followed by JA2 and 5 on the 19th.—30F.

NEW SOUTH WALES

Greetings, chaps, from your new scribe, Bob 2ASZ. At the April meeting 35 members were present to have a go at Winchy 20A against noise figures and antennas at V.H.F.s. Election of officers for 1959 resulted in John 2ZAV taking the chair, Phil 2ZBX vice-chairman, Kevin 2ZCF secretary, and committee members Bob 2ASZ, Jim 2ZCW, and Keith 2ZJK. The chairman's Trophy for maximum points scored in all contests over 1958 goes to Dick 2ZCF and will be presented at the May meeting.

Autumn Field Day on 12/4/59 produced a great amount of activity on 2 m. At the April Night Fox Hunt, 22/4/59, Keith 2ZJK found a spot near the oil storage tanks on Parramatta River, said tanks causing many false bearings. He was found in 37 mins. by Jim 2ZCW. Several V.H.F. Group members were at Urunga including 2PM who cleaned up the 40 mx scramble. Congrats, Winchy 20A, on winning the 1959-60 Adams Trophy for your article to "A.R." on Overtone Oscillators.

The Midwinter Contest will be held on 25th and 26th July, 1959. Form not decided as yet.—2ASZ.

VICTORIA

An incomplete tally of openings on 50 Mc. for the month shows: Apr. 1st, JA: 2nd, ZI 7th and Rth, JA: 9th, VK3 and 4; 10th, VK5 heard; 11th, JA: 12th, the VK4s and JA: 14th, JA: 25th, 95K heard; 29th, JA: May 2nd, KE worked.—30F.

QUEENSLAND

Southern—JA's have been heard by most Brisbane gang this month. There have been some good breakthroughs. Max 4HD has had a number of contacts with KH6's, W's, also KA-TAX. Gordon 4ZBI and other Brisbane boys have heard their share of JA's as well as VK3 and VK5 during the Sporadic E opening on April 12. John 4PU worked Col SRO. JA sgs also in on F2 quite a good day for the Brisbane gang. 4ZBI, Apr. 14 at 2145, worked Ron 5MK. Ron was hearing "Yankee Voices" on the band. The end of the month brought the JA's in again.—4ZBI.

Northern—On Apr. 17 the YL stations in Japan had a Field Day and were most intent on working VK stations. 4ZBE on May 5 had his No. 1,000 contact with JA since the band opened on Feb. 8. His QSL has arrived from George V56CJ. DX is still much the same. New stations in Japan are KAZMI and KA-TAX. Also on the band is W6KUY/MM, some where in the China Sea, c.w. only. VU2RM is still active on 6. On May 2 band opened up and VK2's and 5MK were worked. 95KX worked 6BE. Quite a good bit of back scatter going on, have heard and called 95KX, 4ZBI, 2C1 and VK2M. Main trouble in QSOing has to be the lack of use of proper antenna. ZS1SW is on the air every hour on the hour looking for VKs. Activity in KG6 and KB6 areas will increase shortly.—4ZBE.

SOUTH AUSTRALIA

The VK2's were in on Apr. 9. On 10th, JA's were heard shortly after noon. The 20th, a good opening to JA1, 2, 3 and 7. The 29th again to VK2 and 4, then on May 4 JA4 again. Doug 3KK is new on the band. Mobiles are active on 6 mx with Barry 5ZBZ at the Hum-bucks (approx. 60 miles out) worked by all. The last Fox Hunt, Hughie 5AV won both hunts. The Apr. 28 V.H.F. meeting discussed W.T.C.N., main points 50 Mc. mobile, 10 m. field and the installation of fixed tx and rx at fire fighting headquarters. Anyone with mobile gear on 5 or 28B Mc. is invited to get in touch with John 3KK. 28B Mc. has been very active.—5ZAW.

WESTERN AUSTRALIA

During past two months JA openings have occurred almost daily into all parts of Japan on 50 Mc.; very strong sgs. in many cases. 2/3/59 saw an opening into VK9 when 6B0 and 6BE worked 9XK. Same afternoon 6BG heard what he thinks was a VK2. Other items of interest include the re-appearance of f.m. nets on 48.6 and 48.9, the latter Malay and English and the former American.

DUIFG has reported hearing VK6BE at 2100 on 16/4/59. We believe that IGF is calling each night with beam south. Also attempting to work us is VU2RM, who has been successful in working V58 and K8B.

The beacon VK6VF has justified itself already in securing for us the VK9 contact. Believe Russ heard the beacon the previous week-end and called at that time (8 a.m.) until he made the grade. A further report was received from

a W6 (that raised a hearty cheer in VK6!!!). Unfortunately the info. was incomplete and it turned out that the W6 was NM near Okinawa! Again this was early in the morning.—6BE.

TASMANIA

2 metres on Apr. 28 was exceptional. Peter TPZ using 1.5 signal was a guide. 2145 around the band at 2000 but n.g. At 2125 another check brought up 5BC just signing off with a VK3. A call, an answer, signals 5 and 6 each way. Col TLZ was phoned to get on and they exchanged 559 reports. The distance, approx. 630 miles TLZ/5BC, 600 miles TPZ/5BC. TPZ and TLZ then worked the VK3s, both city and country. The Melbourne stations were very poor. 3ZDE was worked, only that day he received his call sign. What a start. Conditions were still good at 2345. The inversion appeared to break up the next day, the weather map for the day was like one out of the book.



VACUUM MOUNTED CRYSTALS

for general communication frequencies in the range 3-14 Mc. Higher frequencies can be supplied.

THE FOLLOWING FISHING-CRAFT FREQUENCIES ARE AVAILABLE IN FT243 HOLDERS, 6280, 4095, 4535, 2760, 2524.

5.500 Kc. T.V. Sweep Generator Crystals, £3/12/6.

ALSO AMATEUR TYPE CRYSTALS—3.5 AND 7 Mc. BAND.

Commercial—0.02% £3/12/6, 0.01% £3/15/6. plus 12½ Sales Tax.

Amateur—from £23 each, plus 12½ Sales Tax.

Regrinds £1/10/-.

CRYSTALS FOR TAXI AND BUSH FIRE SETS ALSO AVAILABLE.

We would be happy to advise and quote you as to the most suitable crystal for your particular application, either in the pressure or vacuum type holder.

New Zealand Representatives: Messrs. Carrel & Carrel, Box 2102, Auckland.

BRIGHT STAR RADIO

46 Eastgate Street, Oakleigh, S.E.12, Vic.

Phone: 57-6387



for streamlined service...

Vast and varied stocks enable U.R.D. to deal with all orders more promptly than ever before.

Write, telephone, or visit our showrooms—you'll find the service prompt and the advice helpful.

U.R.D. SERVICE

- * Hi-Fi Loud Speakers — Goodmans and other well-known brands.
- * Hi-Fi Amplifiers — Acoustical Quad II, Rogers R.D. Junior & all other brands.
- * Tape Recorders — Ferrograph.
- * Recording Tapes — MSS, Ferrograph, Magnetophonbrand, Scotch, E.M.I.
- * Turntables, Pickups, Speaker Cabinets, Radio Components,
- * All Electrical Appliances, Radio and TV.

UNITED RADIO DISTRIBUTORS PTY. LTD.

Radio, TV and Electrical Wholesalers,

175 Phillip Street, Sydney.

Telephones: BW 3718, BW 3926

Telegrams: URDSYDNEY. Mail Orders: Box 3456, G.P.O., Sydney.

CORRESPONDENCE

Any opinion expressed under this heading is the individual opinion of the writer and does not necessarily coincide with that of the publishers.

AUSTRALIAN DXCC AWARD

Editor "A.R.", Dear Sir,

I have read with interest the various correspondence appearing in your columns relative to the merits and otherwise of the Award. May I take up some of your valuable space to place before your readers some pertinent facts.

1. The list of countries published in "QST" for January 1959 reads: "Partial A.R.R.L. Countries for your convenience in the 1959 DXCC Contest".

(a) From the above we may deduce that there are many more countries to be added.

(b) Since there is no reference to the fact that for A.R.R.L. DXCC purposes this is the official list, we may conclude that it is only a guide and the official list, if it exists, is a separate list. It is fair depending on the activities of the pressure groups within the A.R.R.L.

2. Without going into too much detail, the following glaring idiosyncrasies appear in the list.

(a) KB6, Baker, Howland and American Phoenix Islands. Firstly, Baker Island is British. Howland Island is American and there is no American interest in the island. As to the possibility of this being Enderby Island, Canton Island, one of the group, is in Phoenix and normally carries a VRI prefix, however there are stations on this island signing with a KB6 prefix because the island is a condominium. According to the A.R.R.L. this island counts as two countries. This is utter nonsense since the same rule does not apply to the F08/YJ combination.

(b) Gold Coast (ZG4) changed its name to Ghana with a GDI prefix, so if you worked Gold Coast, and after the change you worked the same name again, you count two countries by A.R.R.L. standards. Again sheer nonsense.

(c) Malaya, Sarawak, Singapore, Ceylon and India have undergone political changes similar to that of Ghana, but they have not been re-classified as has Ghana. WHY? (d) The list has the classic dismembering of the Windward and Leeward Islands into a multitude of separate countries after they had become Federated.

These are but a few of the stupidities of the A.R.R.L. Partial List for the 1959 DXCC Contest.

3. The W.I.A. Official List of Countries for DXCC, as published in January "A.R." is by no means perfect for the following reasons:

(a) It perpetuates some of the stupidities of the A.R.R.L. list, although some of the most glaring ones have been omitted.

(b) It could be amended by the addition of several sensible ones in the A.R.R.L. list, such as Chatham Islands, Howland, Juan Fernandez Is. and the like, and it could be further improved by the addition of East Germany and by breaking down New Guinea into Western Guinea, Riamark Archipelago, and Mandated Solomon Islands.

(c) The list, you will note, includes Java, Sumatra, Celebes and Moluccas and Cambodia, all quite sizeable countries which do not appear in the A.R.R.L. list.

4. The W.I.A. DXCC Award was instituted for the benefit of members and to provide a grading for DX lapins and to give the W.I.A. Award are not the same as those of the A.R.R.L. Award, as will be seen by anyone who takes the trouble to read both of them. Since the A.R.R.L. Award is a contest, there is no valid reason why it should be tied to the A.R.R.L. Award, and to the peculiar thinking of the A.R.R.L. members. It should be noted that the absence of those countries mentioned in para. 3 (c), from the A.R.R.L. list, is due to that fuzzy thinking.

5. I have established that you can shoot the A.R.R.L. Award without being a member of it—you can also do the same to the W.I.A. list, but not to the same extent however. The obvious reason to revise the A.R.R.L. list is to put it on a sensible basis, and with that in view, the W.I.A. tabled a resolution with the I.A.R.U. to get up a new list, acceptable to all A.R.R.L. and W.I.A. members. A committee comprising the A.R.R.L., R.S.G.B. and W.I.A.

The resolution was passed with the A.R.R.L. members voting 100% in favour, and the reason given by the A.R.R.L. was that it already had a list and was happy with it.

I do not anticipate that anything will come of this resolution since two of the committee named are against the idea and it would be embarrassing for the A.R.R.L. to be faced with a handful of amendments.

6. The establishment of pressure groups and attempts by individuals to discredit the Award will not achieve anything. The sensible thing to do is to divorce your ideas from the American Award and work for an amended list based on a sensible approach to the subject. At the present time the Awards Manager's time is given over to managing the DXCC Award for not more than 25 active members, an extremely small minority. I am sure the friendship of the Institute and I often wonder, whether it is all worth while.

7. If, by now, there is anyone still convinced that the A.R.R.L. is the only way the W.I.A. should slavishly follow the A.R.R.L. countries list, then by all means let him give the Australian Award valid and secure recognition of his DX prowess from the A.R.R.L. For my part, I should be delighted as the time I will have will be used more productively.

—Gordon Weynton, VK3XU, Awards Manager.

DX MORAL

Editor "A.R.", Dear Sir,

Recent controversy in DXCC in these columns reminds me to tell again the story I heard in the mess at Abadan during a recent business trip to the Middle East oil fields. With me in the mess were two big fellows, one on some electronic assignment in the area. One, an ardent DX enthusiast, was bemoaning the fact that the Shah of Persia would not allow the Australian Radio in his country to carry the usual boasting of countries worked. The DX'er claimed he had 387 and would like to work Persia for his 388th. The other, who was a chuffed-up chap with three degrees replied, "And on how many of these 387 countries do people live?" Naturally our DX friend was at a loss to answer and I quickly changed the subject to the great Australian ball game and told these chaps they were missing a lot in not having Australian Rules Football on the U.S.A. sporting programme!

The moral of this story is simple! And I repeat it to all these fellows who foolishly make DX their master. Try to keep your balance and remember there's nothing smart or outstanding in working new countries. It's better to keep your own house in order. A recent private letter to the DXCC committee showed it had brought divorce and broken homes to at least 5%.

Part of our code is "The Amateur is Balanced". Worth remembering when you turn in at 2.0 a.m. and wonder why the family gets browned off next day.

—Roth Jones, VK3BG.

WHY IS JUSTIFICATION NECESSARY?

Editor "A.R.", Dear Sir,

Comments have been made in recent issues of "A.R." in relation to "using the bands or losing them". Even the Federal President has aired this idea in his article in April "A.R." All the antitheses that have been put in this vein at this late stage before the I.T.U., seem to me to be a case of "shutting the stable door after the horses have bolted". The A.S.C. have already made up their minds on the figures as density per kilocycle and density per channel, if Mr. Hull's remarks are correct. It is a little late for reacting to them.

However, if one cares to refer to the editorials in "A.R." for July and August 1958, a contrary view appears to be taken. I quote: "The Amateur is a citizen of his own country and cannot be weighed by how many times he operates in a week... use them or lose them... should be a minor worry". Again in August "A.R." one finds an extract from an eminent U.K. journal in the editorial. Quote: "The present level of Amateur activity with the high rate development of the art of Amateur Radio, has become its own justification for proper share of the ether. This is not a matter of 'privilege' or even a 'right' (in the moral sense), but simply a requirement by virtue of sheer weight of numbers!"

Although we might not be able to justify our existence through sheer weight of numbers, Amateur Radio is a collective activity throughout the world, can. But the first part of this extract, contains, I feel, the essence of an idea which could be used as a weighty argument for retention or extension of the frequencies.

Why should we have to justify ourselves in the eyes of the F.A.S.C.? What sort of justification do we want?

Isn't Amateur Radio an internationally recognised service, and on that basis, demand, without whose weight of numbers, slices of the spectrum suitable for it, it is realised of course that this last, perhaps naive,

ROSS HULL V.H.F. CONTEST RESULTS

1958-59

Trophy Winner and Highest Score: VK3ALZ—I. F. Berwick (open) 863 pts.

Longest Distance:

VK6BZ to ZL1BJ—3,400 miles.

Awards, Phone:

VK2ABR—A. W. Rushby	530	pts.
VK3ZAT—D. H. Tanner	586	"
VK4NG—R. H. Greenwood	840	"
VK5ZAX—R. W. Wehr	739	"
VK6WG—W. W. Green	510	"
VK7ZAI—D. A. H. Thorne	289	"
ZL2ADO—K. J. Mercer	261	"

Open:

VK3ALZ—I. F. Berwick	863	pts.
VK5QR—R. V. Galle	739	"
VK6BE—R. Elms	465	"
VK7LZ—C. P. Wright	286	"
VK9XK—S. R. Coleston	387	"
ZL1BJ—W. R. Hamer	438	"
ZL2DS—K. R. Kirkcaldie	434	"

Receiving:

C. Thorpe	741	pts.
J. Hilliard	468	"

Scores, Phone:

VK4NG	840	VK2HE	388
42AX	794	5ZBL	366
42AZ	751	5ZGA	304
52AX	739	7ZAI	289
3ZAT	586	4ZBI	275
2ABR	530	6ZBP	274
6WG	510	ZL2ADO	261
3ZEP	475	5Z5CJ	232
52BF	456	3CF	182
5ZBC	456	3CCF	ch. log
3ZCG	423	2MZ	ch. log
6ZBZ	399		

Open:

VK3ALZ	863	ZL2DS	434
3QB	739	VK9XK	387
6BE	465	7LZ	296
ZL1BJ	438	7FF	97

Receiving:

C. Thorpe (VK4)	741	pts.
J. Hilliard (VK3)	468	"
D. King (VK4)	458	"

statement is physically outvoted by the combined commercial interests. However, Amateur Radio exists—and because of this, irrespective of the internal organisation, the number operating at any given time should be sufficient justification. I would like to hear or see whether the W.I.A. proposals sometime, and see whether anything is included in them.

The fact that there are only a few active on the bands at any one time is of no consequence. Could anyone supply figures, percentages, showing the number of operators at any one time on the bands in the U.K. or U.S.A. in comparison with those in Australia? It would show whether we are populating our bands or are just lining them up.

When the W's are coming through on 20 there doesn't seem to be an undue number. How many W's are there?

No. I feel that it's what we are, not what we do that matters in the end.

It appears to be freely acknowledged that our technical contributions are of minor importance, the fact that we can work the other side of the world is no longer an outstanding achievement, our "ineane chatter" as reported by one correspondent all appear to be negative reasons for the existence of Amateur Radio. I should also mention reasons for the extension or retention of our bands.

You can be sure that the commercial frequency users have thought out all the angles on how best to utilise the frequency per kilocycle or density per channel we can supply.

—Peter Williams, VK3JZ.

AMATEUR CALL SIGNS

FOR MONTH OF MARCH 1959

NEW CALL SIGNS

VK— New South Wales
 2ET—T. G. Elliott, 41 Brisbane St., South
 2AHO—A. H. S. Bridgman, 53 Hunter St., Mona
 Vale.
 2AKX—K. H. Howard, 5 Helen St., Merewether.
 2AMC—W. McDonnell, 26b Wolgert Rd., Ryde.
 2ZGR—G. H. Ronayne, 7/14 Joubert St., Hun-
 ters Hill.
 2ZLS—L. R. Stephens, 50 Meurant Ave., Wagga
 Wagga.
 2ZTM—T. I. Mills, 19 Bullecourt Ave., Mosman.

Victoria

3AKN—D. G. Baule, "Toorong", Broadwater,
 via Port Fairy.
 8ZDJ—D. J. Ashcroft, 9 Doulton Rd., Black-
 burn.
 3ZEM—N. S. Maddern, Station: 15 Hassett St.,
 Shepparton; Postal: Box 248, Sheppar-
 ton.
 3ZGN—G. M. Nicholls, 14 Somerset Rd., Glen
 Iris.
 3ZGV—F. D. Voigt, 13 Nevis St., Hartwell.

Queensland

4BW—G. Whitehead, 101 Zillman Rd., Hendra.
 4ZCM—F. B. Moutrie, 19 Sixth Ave., Kedron.
 4ZCS—P. A. Sweetser, 98 Taringa Pde., In-
 doorooilly.

South Australia

5JD—J. M. Coulter, 69 Conmurra Ave., Ack-
 land Gardens.
 5SJ—J. A. Hampel, Station: 160 Tynte St.,
 Nbh. Adelaide; Postal: NWS9, 116 North
 Ter., Adelaide.
 5ZDP—P. I. Woodlands, 5 Clinton Ave., Myrtle
 Bank.

Western Australia

6OY—T. H. Mitchell, 18 Furnival St., Narrogin.

Tasmania

TFH—F. H. Young, 11a Amherst St., Ulverstone.

Territory of Papua and New Guinea

8DH—D. G. Hallam, O.T.C. Cottage No. 2,
 Sulphur Creek Rd., Rabaul.
 9JD—J. F. Dalstead, D.C.A. Mess, Huon Rd.,
 Lae.

CHANGES OF ADDRESS

VK— New South Wales
 2BG—B. L. Glassop, 343 Kissing Point Rd.,
 Ermington.
 2BW—A. S. Moye, 17/133 Macleay St., Potts
 Point.
 2MF—C. M. King, 185 Markham St., Armidale.
 2NY—J. V. Smith, 24 Tintern Rd., Ashfield.
 2PS—P. G. Stephen, 8 Avenue, Lake Park,
 Narrabeen.
 3QY—A. M. L. Moss, 15 William St., Rosebery.
 2UK—G. E. Denysa, 223 William St., Kings
 Cross.
 2VB—L. W. Burgess, 100 Walker St., Cabra-
 matia.
 2AAB—B. E. White, 28 Redgrove Rd., Norman-
 hurst.
 2AGD—G. L. Lee, 14 Waratah St., Kahibah.
 2AGW—A. E. Hay, 1625 Pittwater Rd., Mona
 Vale.
 2ALV—L. Jordan, 27 Figtree Cres., Figtree.
 2AMP—C. A. W. Pryor, 36 Tango Ave., Dee
 Why.
 2AOM—A. N. Murdoch, Lot 3, Galston Rd.,
 Hornsby Heights.
 2AVQ—R. McKew, 20 Sibbick St., Five Dock.
 2ZBW—P. W. White, 48 North St., Auburn.
 2ZRW—R. Weaver, St. Andrews College, New-
 town.

Victoria

3CZ—A. I. Berry, Station: "Belsaye Park,"
 Hazelwood Place, Warburton; Postal:
 P.O. Box 27, Warburton.
 3IK—L. K. Sewell, 72 View Hill Rd., N. Balwyn.
 3KT—P. T. Filmer, 8/31 Docker St., Elwood.
 3MD—R. R. McDonald, 247 Sussex St., Merlyn-
 ston.
 3PJ—V. H. Leonard, Station: "Grenoble," Main
 Rd., St. Andrews; Postal: C/o P.O.,
 Smith Gully Road.
 3PL—J. F. Isaac, 378 Balcombe Rd., Beumaris.
 3PX—H. M. Finnigan, 13-15 Beley St., St.
 Arnaud.
 3QX—N. Campbell, 45 (Lot 1) Kennedy St.,
 Oak Park.
 3AKV—K. C. Burnett, Lot 96, Adelaide Grove,
 Mt. Waverley.

3ASH—J. L. C. Hart, 83 Union Rd., Surrey
 Hills.
 3ZDN—R. M. Macrae, Lot 4, Cherylnne Court,
 Kilsyth.

Queensland

4JU—F. W. Nolan, 178 Given Ter., Paddington,
 Brisbane.
 4PW—D. W. Crawford, 22 Alfred St., Mackay.
 4WT—N. J. G. Watling, 23 Hynch St., Wulguru,
 Townsville.
 4ZBZ—R. M. Feenaghty, Regent St., Wynnum
 North.

South Australia

5EE—E. T. Walter, 5 Bovey St., Hampstead
 Gardens.
 5FY—R. A. Catmur, 142 Woodford Rd., Eliza-
 beth North.

Western Australia

6JN—J. W. G. Nind, Lot 11, Talbot Rd., Swan
 View.
 6RK—R. S. Choate, 37 Peplar Ave., Salters
 Point.

CANCELLED CALL SIGNS

VK— New South Wales
 2GM—G. McDowell.
 2TS—T. G. McEwan.
 2UH—N. G. Hansen.
 2UO—J. F. Dalstead (now VK9JD).

Victoria

3DP—J. M. Farrer.
 3IG—G. W. Ireland.
 3AHM—H. A. McLeod.
 3ZCX—D. G. Voigt.

Queensland

4CW—K. C. Woskett.
 4ZAW—G. Whitehead (now VK5BW).

South Australia

5BY—D. R. Whitburn.
 5GR—H. E. A. Gehrke.

PERMITS GRANTED FOR

TELEVISION EXPERIMENTS

2TW/T—C. G. Smith, 26 Colin St., Cammeray.
 5S3/T—J. A. Hampel, Station: 780 Tynte St.,
 Nbh. Adelaide; Postal: NWS9, 116 North
 Ter., Adelaide.

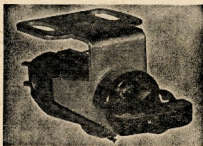
THE "MACRON" CRYSTAL TURNOVER PLAYER CARTRIDGE TYPE H.F.11

Made in Australia to suit Australian conditions

by MACRON ELECTRONICS PROPRIETARY LIMITED, 54 High Street, Glen Iris, Victoria

LET US LOOK AT THE FACTS:

- ★ Clip-in insert. Can be replaced without removal of mounting bracket.
- ★ Half inch and centre mounting interchangeable with standard arms.
- ★ Robust construction with positive positioning for "Standard" and "Longplay" positions.
- ★ Non-hygroscopic adhesives used throughout in the manufacture of the crystal element.



- ★ Slip-in Sapphire styli, interchangeable with standard makes.
- ★ Replacement styli available, also fit other standard cartridges.
- ★ High compliance, which ensures good tracking, thus resulting in low record wear.
- ★ Wide frequency response, enabling the utmost realism from modern wide-range recordings.
- ★ Attractively and safely packed in sealed clear-plastic container.

AGENTS: D. K. NORTHOVER
 115 Murray Street, PERTH, W.A.

NEIL MULLER LTD.
 8 Arthur Street, UNLEY, S.A.

JACOBY, MITCHELL & CO. PTY. LTD.
 469 Kent Street, SYDNEY, N.S.W.

Marketed by ZEPHYR PRODUCTS PTY. LTD., 58 HIGH STREET, GLEN IRIS, S.E.6, VICTORIA

FEDERAL

Fed. President: G. M. Hull, VK3ZS.
Fed. Secretary: L. O. Bowie, VK3DU, Box 3611W, G.P.O., Melbourne, C.I. Vic.
Federal Councillors:
 New South Wales—Bob Godsal, VK2ARG;
 Victoria—Dave Wardlaw, VK3ADW;
 Queensland—Arthur Wals, VK4AW;
 South Australia—Rex Richards, VK3DO;
 Western Australia—Ron Hugo, VK6KW;
 Tasmania—E. J. Cruick, VK3KJ;
 Papua-New Guinea—Russ Coleham, VK9KK.
Fed. Contest Committee: Reg. Harris, VK5RR,
 Secretary, Box 1234K, G.P.O., Adelaide, S.A.
QSL Bureaus: R. E. Jones, VK3RJ, 23 Landale
 St., Adelaide, S.A.;
Awards Manager: A. C. Weynton, VK3KU,
 5 York Street, Bonbeach, Vic.

NEW SOUTH WALES

President: Dave Duff, VK3EO.
Secretary: Norm Beard, VK2ALJ, Box 1734,
 G.P.O., Sydney.
Meeting Night: Fourth Friday of each month at
 Science House, Gloucester Street, Sydney.
QSL Bureau: Box 1734, G.P.O., Sydney, Frank
 Hine, VK3QJ, Manager; assisted by Allan
 Smith, VK2AIR.
Zone Correspondents: North Coast and Table-
 lands: Noel Hanson, VK2AHM, Ryan Ave.,
 West Kempsey; Hunter Branch: R. W. Rose,
 VK2AQR, 17 Brooks St., West Wallsend;
 Coalfields and Lakes: I. Hawkins, VK-
 3YL, 6 Comfort Ave., Cessnock; Western: W.
 Stitt, VK2WH, "Cambajowa," Forbes; South
 Coast & Southern: E. Fisher, VK2DZ, 2 Oxide
 St., Traralgon; Sth. Western: J. S. Edge,
 VK2AJQ, Wallace St., Coolamon; Tamworth:
 S. Smith, VK2APS, 30 Upper St., Tamworth.

VICTORIA

President: D. A. Wardlaw, VK3ADW.
Secretary: J. R. Lancaster, VK3JL.

FED. CONTEST COMMITTEE

The final meeting of the retiring committee
 was held on 29th April to attend to the results
 of the Ross Hull V.H.F. Contest and to conclude
 the business.

To take up the gap between the retirement
 of the old committee and election of officers of
 the new committee to be nominated by the
 VKT Divisional Council and ratified by Federal
 Executive the retiring committee is acting on
 their behalf as follows:

VK-ZL Contest: The retiring Chairman and
 Contest Manager will attend to the posting of
 the next VK-ZL Rules to overseas magazines
 and societies.

Ross Hull Contest: The results will be pub-
 lished in A.R. and certificates will be forward-
 ed. Any queries should be addressed to the
 retiring committee.

The incoming committee will take over with
 the checking of the R.D. Contest and logs
 should be sent to the F.C.C., W.I.A., Box 571B,
 G.P.O., Hobart, Tasmania.

CONTEST CALENDAR

Compiled by W.I.A. Fed. Contest Com.



NATIONAL FIELD DAY:

Comments on any changes to the F.C.C.,
 W.I.A., Box 571B, G.P.O., Hobart,
 Tasmania.

REMEMB. DAY CONTEST, 1959:

Dates: Saturday, 15th August, to Sun-
 day, 16th August, 1959.
 Duration: 1600 hrs. E.A.S.T. to 1759 hrs.
 Next: 1st Apr. for 1958.
 Logs: Return postmarked not later than
 6th September, 1959.

VK-ZL DX CONTEST, 1959:

Dates: Phone—1000 GMT, Saturday, 3rd
 Oct.—1000 GMT, Sunday, 4th Oct., 1959.
 C.W.—10th Oct.—11th Oct., 1959.
 Rules: Overseas, as for 1957. VK-ZL,
 Bonus value altered (watch Aug.
 A.R.).

"CQ" WORLD-WIDE:

Dates: Phone—Last week-end Oct. '59,
 C.W.—Last week-end Nov. '59.

NOTES

Administrative Secretary: Mrs. May, 478 Vic-
 toria Parade, East Melbourne, C.I. Postal
 address: P.O. Box 36, East Melbourne, C.I.
Meeting Night: First Wednesday of each month
 at the Radio School, Royal Melbourne Tech-
 nical College.
Divisional Sub-Editor: W. M. Jones, VK3YE,
 7 New St., Surrey Hills, E.I.C.
QSL Bureaus: Inwards and Outwards—W.I.A.,
 Div. P.O., Box 36, East Melbourne, C.I.
Zone Correspondents: Western: W. J. Kinsella,
 VK3AKW, Magdala, Lubeck; South Western:
 W. Wines, 48 Cranley St., Warrnambool; Far
 North Western: M. Folie, VK3GZ, 101 Lemon
 Ave., Mildura; Midland: R. Jonasson, VK-
 3ND, Farnsworth St., Castlemaine; North
 Eastern: T. K. Tennant, Park St., Tatura;
 Eastern: J. Sparik, VK3AJK, 20 Marshall Ave.,
 Moee.

QUEENSLAND

President: John Pickles, VK4PP.
Secretary: W. J. Rafter, VK4PR, Box 638J,
 G.P.O., Brisbane.
Meeting Night: Fourth Friday in each month at
 the State Service Union Rooms, Elizabeth
 Street, Brisbane.
Divisional Sub-Editor: D. B. Hughes, VK4ZBD,
 60 Mayne Rd., Bowen Hills, Brisbane.
QSL Bureau: Jack Fills, VK4JP, Vanda St.,
 Brisbane.
Zone Correspondents: Maryborough: R. J.
 Glassop, VK4BG, 60 North St., Maryborough;
 Townsville: R. Wilson, VK4RW, Hogan
 St., Stuart, Townsville.

As chairman of the committee for the five
 years that the members have been drawn from
 the S.A. Division, I have been very conscious
 of the loyalty and the loyalty that these mem-
 bers have brought to their office and on behalf
 of all members of the Institute I wish to
 thank them sincerely through this.

In spite of much hard work and in spite of
 the many varied problems that have beset
 the committee from time to time, I can safely
 say that the service has brought its joy and
 happiness.

To the VKT Division, the committee extends
 its best wishes for a successful term of office
 for their nominees. We are confident that they
 will receive the same help from contestants that
 they have received from this.

On behalf of the Contest Manager, Rex Rich-
 ards, VK3DO; the Secretary, Reg. Harris, VK5RR;
 the V.H.F. Advisor, Reg. Galle, VK5QR;
 and DX Advisor, Les Catford, VK4LC, 73 and
 many thanks.

Gordon Bowen, VK3XU,
 Chairman (Retiring F.C.C.)

FEDERAL QSL BUREAU

The A.R.L. advise the new address for the
 W5 QSL Bureau is: Brad A. Beard, W5ADZ,
 Box 2517E, P.O. Houston 5, Texas, U.S.A.
 A number of cards each addressed to differ-
 ent HL stations have been returned by the
 K.A.R.L., Central Box 162, Seoul, Korea. They
 bear their endorsement "Unauthorised Sign, re-
 turn to sender".

Cards for VKOTF should be routed care of
 Fred Bail, VK5VY, who is handling them on
 behalf of Ted Fuller.

Under date of 26th April, Eric BERS196 sup-
 plies the following note for the column and
 solicits a few tears on behalf of his beloved
 "Magpies". All the tears from the walling wall
 at Jerusalem would not atone for their per-
 formance since the date.

Last year ODSAM gave many VK stations
 their first contact with Lebanon. The station
 QSL reveals that the operator is Youssef Nader
 is ex ARBAN. He now operates a 20 watt
 on 14 Mc.—A3 mainly. He requests cards be
 sent him at Box 1010, Beirut, Lebanon.

Al Scarlett, W5CC, and his good lady recently
 took a short vacation on Puerto Rico, as the
 guests of Luke KPM4U. Luke, who is a con-
 tractor, and his son who holds a radio call sign,
 showed the Scarlets the whole island, Jack
 Elliott, ZL3CC, currently on a motor tour of
 the accessible parts of Europe, will later cross
 the Atlantic and spend a couple of weeks on
 his two months in W and VE, as the guest
 of W2CC.

SOUTH AUSTRALIA

President: B. W. Austin, VK5CA.
Secretary: J. C. Hamilton, VK3JK, Box 1234K,
 G.P.O., Adelaide. Telephone: M 7651.
Meeting Night: Second Tuesday of each month
 at 17 Wymouth St., Adelaide.
Divisional Sub-Editor: E. C. Daw, VK3EF, P.O.
 Box 43, Gawler, S.A.
QSL Bureaus: G. Luxton, VK5IX, 27 Belair Rd.,
 West Milchem, S.A. (Inwards & Outwards).

WESTERN AUSTRALIA

President: L. Roeger, VK5HR.
Secretary: J. R. Elms, VK6BE, Box N1002,
 G.P.O., Perth, W.A.
Meeting Night: Third Tuesday of month at
 Tech. College Annex, Mounts Bay Rd.
Zone Correspondent: J. R. Elms, VK5BE,
 29 Central Road, Kalbarunda.
QSL Bureaus: Jim Rumble, VK6RU, Box F319,
 G.P.O., Perth, W.A. (Inwards and Outwards).

TASMANIA

President: Mr. L. R. Jensen, VK7LJ.
Secretary: K. E. Millin, VK7KA, Box 371B,
 G.P.O., Hobart.
Meeting Night: First Wednesday of each month
 at W.I.A. Clubroom, 147 Liverpool St., Hobart.
Divisional Sub-Editor: I. Nichols, VK7ZZ, 9
 Cressy St., New Town.
QSL Bureau: J. Batchler, VK7JB, 39 Willow-
 dene Ave., Lower Sandy Bay, Hobart.
Zone Correspondent: J. R. Elms, VK5BE,
 Terry Toms, VK7TT, Northern Zone—Ray
 Waldon.

PAPUA-NEW GUINEA

President: F. N. Nolan, VK8FN.
Secretary: Roy Taylor, VK8AU, P.O. Box 264,
 Port Moresby.
Meeting Night: Last Wednesday in each month,
 R.S.L. Reading Rooms, Elia Beach, P. Moresby.
QSL Bureau: C. Kiernan, VK9GK, P.O. Box
 264, Port Moresby.

Writer has 11 of the 12 months of 1958 "CQ"
 for free disposal. November is the month that
 is missing, unless returned by the borrower in
 the meantime. First lot with postage—approx-
 imately 5/—will get the lot.

—Ray Jones, VK3RJ, Manager.

NEW SOUTH WALES

HUNTER BRANCH

Unfortunately my correspondent was absent
 in Sydney during the April meeting when about
 200 participated in a demonstration by John
 ZTU of his stereo apparatus. The attendance
 book was filled with empty spaces but forty
 members were present together with repre-
 sentatives of the I.R.E., "A" and "B" broadcast
 stations, radio trade houses, music stores, music
 critics, record manufacturers, University and
 Technical College and the public. It was voted
 a great success and the guests given to the
 College and to Gordon, 2CI for the loan of
 speakers and vented enclosures. Bill Z2L un-
 fortunately missed an opportunity to hear that
 sound so dear to his heart, but he was busi-
 nessing 2AQR across the busy metropolitan
 streets.

The monthly social was again poorly attended
 but those who were there were fortunate to
 meet Kim W5YNB, of the S.S. Ventura. If the
 fog is as bad this month the writer won't be
 there as he almost got lost after delivering
 his Fennel's Bay and Teraiha cargo. Bill W6AL
 visited Ron ZASJ during the month and also
 visited Ron ZASJ during the month and also
 spoke to Bill Z2T per medium of the twisted
 pair. When we arrived at Bill's place for the
 social he was using his DX-40 and was pleased
 to hear of our DX-40. He said he was going to
 interpret what fellow-countryman Dave SDS
 was saying. Looks like the a.s.b. monster be-
 ing called "G" Chawton is going to make
 itself heard from 2AWX very soon now.
 Congrats to John Rugg in attaining his Z2JR
 call and hope that it won't be long before
 the mouse is mastered.

SILENT KEY

It is with deep regret that we
 record the passing of:—

VK3WT—W. G. Barratt.

VK3AWL—L. Western.

Believe Bill 2XT is taking up a collection to commemorate the retirement of Mchuselah, understand that full particulars can be obtained from Gordon 2CL. Pleased to hear one of our more distant branch members report in on the 2AWX hook-up. I refer to the 2CY. Congrats to the new State Council and to Dave 2EO for his elevation to Presidency. Sorry to lose Pierce 2APQ who did an exceptional job over the past two years. There was quite a gathering of the Goons at Dural early this month. Muriel 2AIA, Bill 2ZL and Neta; Ivan 2AIM and Eric; Tom 2AOV and A. B. and 2AQR were all present, some with and some without their harmonics. The only Goon absent was Pop 2AEL, who unfortunately doesn't take too kindly to travel. Dural was not wrecked, but I am sure Pierce and his cohorts breathed a sigh of relief when all and sundry departed.

Hope all you chaps headed the words of our advisers and wired, wrote or rang your Federal Member in regards to the proposed increase in your frequencies. The first die has been cast, so now you know why the official arm twisters have been at work so vehemently. The Fund is still open.

George 2ADZ has been roaming this district with his 22 and what he did to 2AQR on the billiard table still makes my hand shake—frame up of course.

The next Branch meeting will be held at the University of New South Wales, Tighes Hill, 8 p.m. on Friday, June 12, and the next social at Bill Hall's will be on Wednesday, June 24. Your presence will make one more.

VICTORIA

This month we have a change of scribe for the notes in that Vern 3YE, who has been so ably attending to these for so long, has had to give up due to other business arrangements. Who it will be in the future we are not sure, so this month items from VK3 are very brief.

The general meeting of the Division was held on Wednesday 6th and 34 members were present. Fred 3YS, who is now the Vice-President, welcomed David 3ADW as Victorian Division President. We had a visitor in George 3F, WEDIT, who came with John Hiney 3JF.

The agenda item was films, which were: Operation Footnold, an excellent documentary on the establishment of the British Antarctic Base for the L.G.V. at Shackleton; a travel film on Switzerland, and a further documentary across the Antarctic covering the operations of the Australian Antarctic Base at Mawson.

Following the break the adjourned annual general meeting was resumed and the accounts for the year were received and adopted. The annual general meeting was then closed and the ordinary general meeting re-opened. The following new members were admitted: J. F. Ryan, 3ZBR; P. Furr, 3ZAF; J. R. Goding, 3ZGG; T. K. Long, 3ZFI; and Associates M. W. O'Connor and V. H. Richardson.

The meeting elected Alan Elliott, 3AEL, as Federal Councillor in place of David 3ADW, who resigned to become Divisional President. David answered a number of questions regarding the F.A.S.C. and urged members who had not already done so, to contact their individual

Wireless Institute of Australia

Victorian Division

A.O.C.P. CLASS

commences

THURSDAY, 30th JULY, '59

Theory is held on Monday evenings, and Morse and Regulations on Thursday evenings from 8 to 10 p.m.

Persons desirous of being enrolled should communicate with—Secretary W.I.A., Victorian Division, P.O. Box 36, East Melbourne (Phone: JA 3535, 9 a.m. to 4 p.m.) or the Class Manager on either of the above evenings.

OBITUARY

WILLIAM ("BILL") BARRATT, VKSWT

Bill, who died on 30th April, 1959, after a long illness, was an active Amateur pre-war—operating under the call sign of VKSWT from 1936 onwards. He was a keen c.w. man and only came on phone after the formation of the Geelong Amateur Radio Club, of which he was a foundation member.

He was a member of the Wireless Institute of Australia for many years.

His bright and cheerful manner and ready smile endeared him to all who met him and he will be sadly missed from our ranks.

Deepest sympathy is extended to his relatives.

Federal Members of Parliament. This was to be done in the Amateurs' capacity as a private citizen as soon as possible.

Fred 3YS appealed for a member to come forward to organise the erection of antennae for SWL.

The next meeting, Jock 3ZDG is organising a v.h.f. lecture and demonstration; and in July, Lex 3AIL will give a talk on single sideband with particular reference to the phasing method.

GEELONG AMATEUR RADIO CLUB

April was a month of considerable activity for club members, but unfortunately ended on a note of sadness when on Thursday, 30th, our good friend Bill SWT passed into the ranks of "Silent Keys". Bill, an original and highly respected member of the club was the recipient of the only life membership certificate ever presented by the club. We extend to Bill's relatives our deepest sympathy in their loss.

Club tx hunts were well attended. The first on April 1 was won by L. Costa and party; Keith Vriens, AM 3AJF and Jim 3ABT being the operators at the hidden location. On 28th Bob 3IC with tx mounted on the motor bike went into hiding. He was found by K. Vriens, L. Costa and H. Michael in that order. The second hunt for the evening was again won by K. Vriens with this time H. Michael in second place.

The S.W. Zone Convention on the second week-end was a busy time for all club members and the culmination of weeks of planning to ensure that all visitors had a really enjoyable time. We congratulate Keith Vriens in being the first winner of the club trophy. This trophy, a very nice barometer and thermometer

NEW!! THE

IRONCORE GERMANIUM DIODE BATTERY CHARGER

WITH EXTRA POWER

DUAL MODEL ONLY, 12v. 4 amp., 6v. 6 amp.

AVAILABLE THROUGHOUT AUSTRALIA

★

IRONCORE TRANSFORMERS PTY. LTD.

HIGSON LANE, MELBOURNE, C.I

Phone: MF 4771

Wireless Institute of Australia

Victorian Division

A.O.C.P. CLASS

commences

THURSDAY, 30th JULY, '59

Theory is held on Monday evenings, and Morse and Regulations on Thursday evenings from 8 to 10 p.m.

Persons desirous of being enrolled should communicate with—Secretary W.I.A., Victorian Division, P.O. Box 36, East Melbourne (Phone: JA 3535, 9 a.m. to 4 p.m.) or the Class Manager on either of the above evenings.

Duralumin Aluminium Alloy Tubing for Radio Aerials

★ LIGHT ★ STRONG ★ NON-CORROSIVE

STOCKS NOW AVAILABLE FOR IMMEDIATE DELIVERY

ALL DIAMETERS— $\frac{1}{4}$ " TO 3"

RECOMMENDED FOR TELEVISION AND BEAM AERIALS

Price List on Request

STOCKISTS OF SHEETS—ALL SIZES AND GAUGES

GUNNERSSEN ALLEN METALS

PTY. LTD.

88-92 YARRA BANK ROAD, SOUTH MELBOURNE

Phone: MX 4624 (9 lines)

Telegrams: "Metals," Melbourne.

Homecrafts

EVERYTHING IN RADIO AND TELEVISION

COLLARO 4-SPEED HI-FI TRANSCRIPTION TURN-TABLE, £31/2/6

CONQUEST — the new Collaro 4-Speed Automatic Record Changer, £18/1/6

COLLARO 4-SPEED RECORD PLAYER £12/10/0

The world's best COLLARO 3-SPEED TAPE DECK with four HI-FI Heads £32/10/6

SPECIAL

BSR TU-9 6v. DC Turntable £9/10/0
BSR TU-9 230v. AC Turntable £7/10/0

THORENS

RECORD PLAYER CB83N

Manual Player, variable speed adjustment, with 12 inch turntable, easy weight adjustment. £25/0/0

RECORD CHANGER CD43N

Fully Automatic Changer, including pause control. £35/0/0

SAPPHIRE REPLACEMENT

Stylus to suit Collaro, B.S.R., Garrard, velvet act record changers and players. Easy to fit yourself. 13/6 each.

DIAMOND STYLUS for Collaro, B.S.R., Garrard Players and Changers £7
For Dual Players and Changers, Std. Sapphire, LP Diamond £7/11/6

HI-FIDELITY ELECTRO-STATIC TWEETERS

available now, Price 32/6

COSSOR V.T.V.M. KIT SETS

£29/14/0 plus 12½% Sales T. Complete with instruction books, diagrams and printed circuit.

Brand New

Baker 12 in. Hi-Fi De Luxe Speakers, £14/19/6
Limited number only.

PRONTO SOLDERING GUN

HOT IN FIVE SECONDS, £6/10/0

SCOPE SOLDERING IRON SPARES

Carbons	1/-
Bits	10d.
Bakelite Handles	15/4
Flex Leads	8/4
Centre Rod Assemblies	8/4
Steel Barrels	8/4
Ceramic Beads	4d.
Retaining Nuts	1/8
Switch Nuts	1/8

Scope AC/DC 6v. 6-seconds Soldering Iron £2/10/0
Scope 230v. Transformer 49/7
1/8 in. 5/32 in. 3/16 in. Spin Tites 11/6

GLEN RADIO AC/DC INVERTERS

50 watt Inverters: 12, 24, 32, 50, 110, 230v. DC input; 230v. 50 cycles AC output, £22/9/6.
100 watt Inverters: 12, 24, 32, 50, 110, 230v. DC input; 230v. 50 cycles AC output, £28/2/6.
150 watt Inverters: 12, 24, 32, 50, 110, 230v. DC input; 230v. 50 cycles AC output, £37/1/3.

METAL CABINETS

Set of 16 Drawers, 48/6

ZEPHYR MATRIX BOARDS

No. 259B—6 holes wide x 3 in. 1/2 ea.
260B—6 " " 6 " 3/3 " "
262B—6 " " 12 " 6/3 " "
263B—6 " " 36 " 12/7 " "
270B—9 " " 6 " 3/10 " "
272B—9 " " 12 " 8/1 " "
259—Small Pin, Solder Lugs 2/6 ea.
252—Large Pin, Solder Lugs 2/6 ea.
254—Right Angle Brackets 3/- ea.
255—Valve Socket, 7-pin 3/11 ea.
256— " with shield 8/4 " "
257—Valve Socket, 9-pin 4/2 " "
258— " with shield 10/7 " "
281—Eye Bolts " " 2/- ea.
282—Riveting Tool " " 38/11

High Quality "Brown" Headphones, Type "F"

60/- plus 25 per cent. Tax

HOME CRAFTS PTY. LTD. for the Finest Stereo and HI-FI Record Playing Equipment.

MOTORS

Garrard 301 £46/7/6
Connoisseur £49/10/0
Orpheus £59/17/6
Commonwealth Electronic:
Non-syn. type 12B1 £39/17/6
Synchronous type 12B £39/17/6
Lenco £39/0/0

AMPLIFIERS

Pilot, 12 watt 89 Gns.
Aegis 3-4 £37/19/6
Aegis 5-10 & control unit £48/2/6
Gramphon, c/w. pre-amp. unit £58/16/0
Leak TL12 c/w. Mk. III. pre-amp. unit £165/13/6
Quad £113/12/6
Stearns 8 watt Hi-Fi EV4430 £47/15/0
Armstrong A10 £82/19/0

PICK-UPS

Leak c/w. diamond head and transformer £23/18/4
Ortofon c/w. type A sapphire L.P. head and transformer £18/0/0
Accos Black Shadow £17/15/0

STEREO—

Players and Cartridges

BSR Players HF8/S £16/16/0
BSR Changers UA8/S £22/0/0
Dual 1004/S £37/0/0
Ronette Cartridges £4/12/6
TC8/S Cartridges £5/5/0
Accos GP1 Cartridges (diamond) £18/17/6
Accos GP13 Cartridges (sapphire) £5/13/0
Goldring G60 Arm less Cart-ridge £8/10/0
FULL STOCKS of all available Stereo and Monaural Equipment for immediate delivery.

AMATEURS' BARGAIN CENTRE

TRANSISTORS

All available Types Stocked

PHILIPS

OC16G	59/4	OC70	27/1
OC44	38/10	OC71	27/1
OC45	36/7	OC77	39/6

S.T.C.

TJ1	116/0	2N185	31/10
TS1	27/0	2N308	52/6
TS2	29/8	2N252	55/6
TS3	32/0		

DIODES

OA70	5/3	GEX35	5/8
OA79	6/5	GEX45	12/11
OA81	5/7	GEX54	12/11
OA85	7/1	GEX55	22/7
GEX90	4/11		

Transistor Transformers ROLA

TR7 Output	420/3.5 ohm	18/0
TR8 Output	300/3.5 ohm	18/0
DR4 Driver	2000/1330 ohm	18/0
TR18 Output	375/3.5 ohm	21/0
DR17 Driver	3000/2000 ohm	21/0
TR17 Output	450/15 ohm	22/6
DR27 Driver	4000/2000 ohm	23/6

Latest Model 4-SPEED CHANGER £12 for this month only.

TV ANTENNAE

A complete range from £4/15/0

AVO 10,000 ohm per volt, Pocket Multimeter £9/12/0 plus tax.

ASTOR TV-1 3 in. Oscilloscope. Complete with gratings, etc. £65 plus 12½% Sales Tax.

ROLA SPEAKERS

3C	£1/12/0	8M	£2/3/0
4C	£1/11/6	12-O	£6/0/0
4F	£2/1/0	12-O De Luxe	£6/10/0
4-5C	£1/17/6		
4-5F	£2/8/0		
5C	£1/18/0	12-MX, twin cone,	£6/16/6
5-7E	£2/7/0	12-OK, twin cone,	£11/4/0
5F	£2/7/0		
5FX	£2/5/0		
6M	£2/15/0	12UX Hi-Fi, 15 ohm V.C.,	£28/19/6
6-9H	£2/15/0		
8-A	£2/3/0		

290 LONSDALE STREET, MELBOURNE

FB 3711



AMATEUR BAND H.F. COMMUNICATIONS RECEIVER

Model
209-R

This is a 12-Tube (plus 1 voltage stabilizer, 1 current stabilizer, and 2 selenium rectifiers) H.F. Communications Receiver designed exclusively for Amateur Band operation.



The following features and specifications are presented:

FREQUENCY RANGES:

10 metre band:	28.0 — 29.8 Mc.
11 metre band:	26.4 — 28.1 Mc.
15 metre band:	20.6 — 22.0 Mc.
20 metre band:	13.8 — 14.6 Mc.
40 metre band:	6.95 — 7.5 Mc.
80 metre band:	3.5 — 4.0 Mc.

ACCURACY OF CALIBRATIONS:

80, 40 and 20 metre bands	± 10 Kc.
15, 11 and 10 metre bands	± 20 Kc.

INTERMEDIATE FREQUENCIES:

1st I.F.	4.6 Mc.
2nd I.F.	467 Kc.

SENSITIVITY:

Better than 1 microvolt for 1 watt audio output.

IMAGE REJECTION:

Better than 50 db. on all frequency ranges.

SIGNAL TO NOISE RATIO:

At 1 microvolt better than 6 db.

TUBE LINE-UP:

R.F. Amplifier	6BA6
Oscillator buffer	12AU7
Mixer, 1st I.F. (4.6 Mc.)	6BE6
Mixer, 2nd I.F. (467 Kc.)	6BE6
Crystal Oscillator for S.S.B.	12AU7
1st I.F. Amplifier	6BA6
2nd I.F. Amplifier	6BA6
Audio and A.V.C. Det., B.F.O.	6T8
Mixer for S.S.B.	6BE6
A.F. Amp. Crystal Calibrator	12AX7
Noise Limiter	6AL5
Audio Output	6AQ5

SELECTIVITY:

Five positions: Normal, Xtal 1, Xtal 2, Xtal 3, Xtal 4.

RECEPTION OF S.S.B.:

Amplifier and detector circuit for S.S.B. signals, upper as well as lower sidebands, with carrier re-insertion.

"S" METER:

S1-S9, S9 + 20 db., S9 + 40 db.

ANTENNA INPUT:

Balanced or unbalanced.

AMATEUR NET PRICE: £163/1/10 (F.O.R.) including Sales Tax

AVAILABLE FROM ALL LEADING DISTRIBUTORS

SOLE AUSTRALIAN REPRESENTATIVES

R. H. CUNNINGHAM PTY. LTD. Cables "CUNNING"

VIC.: 8 BROMHAM PLACE, RICHMOND, JB 1614
Q'LD.: 70 BOWEN STREET, BRISBANE

N.S.W.: 16 ANGAS ST., MEADOWBANK, WY 0316
S.A.: 14 STAMFORD COURT, ADELAIDE. 51-6392